Study of Impacts Caused by Exempting Currently Non-exempt Maine Interstate Highways from Federal Truck Weight Limits

Appendix A: Weigh-in-Motion (WIM) Station Data Details

Weigh-in-Motion Station (WIMS) data

For this study, data was extracted from ten Weigh-in–Motion stations (WIMS) in Maine. WIM stations record a variety of statistics for each vehicle passing over sensors imbedded in the pavement, including:

- Number of axles
- Gross vehicle weight (GVW)
- A calculation of equivalent standard axle load (ESAL P2.5, SN5)
- Vehicle speed

The WIM stations in Maine were first installed early in 2001. For this analysis records for every vehicle with 5 or more axles were extracted. The time period of the records is from the beginning of station operation through the end of October 2002. The total number of records exceeds 8 million.

All WIM station records for vehicles with 5 or more axles were imported into an ACCESS database and the most recent complete year of data was extracted for each station. A full year of representative data was available for each station, with the exception of one Maine non-turnpike station, where the dataset fell only a few days short of a full year. This data was then 'filtered' to capture only 5 axle and 6 axle 'combination' tractor-semi-trailer (TST) trucks (class 9 for 5 axle, class 10 for 6 axle). Average annual daily values were then derived from the annual data sets.

The Exhibits on the following pages contain:

- A summary of Average Daily Traffic (ADT) at the WIM stations (Exhibit A-1 and A-2).
- Graphics (Exhibits A-3 through A-14) showing vehicle counts and resulting ESALs for the turnpike WIM stations; first by total counts for all 5 and 6 axle combination trucks passing the station, then by direction, then by number of axles.
- Detailed statistics for each station (**Exhibits A-15** through **A-24**); the introduction to this detail section contains explanations of the data organization, which also applies to the graphs and summary table.

In all cases, the primary organization of the data is by loaded GVW category:

- below exempt wt loaded GVW below exempt weights;
- exempt weights 5 axle with loaded GVW between 80,000 and 88,001 lbs., or 6 axle with loaded GVW between 80,000 and 100,001 lbs.;
- above exempt wt loaded GVW above exempt weights.

To assist visual comparison, the graphics show the proportion of vehicles **at exempt weights** at the <u>bottom</u> of the bars, then vehicles **over exempt weights**, and finally vehicles **under exempt weights** at the <u>top</u> of the bars. All tables list weight categories in their natural order: first vehicles under exempt weights, then exempt, then over exempt.

The stations have been broken into three regional groups to assist comparison:

1. Stations on the Turnpike or I-95

Two of the four stations included in this discussion are on Turnpike segments of I-95 where federal weight limits apply (South ME Turnpike and Central ME Turnpike). And one station is located on I-95 The vehicle weights have been broken into the same weight categories as all other stations, even though at these two stations the weights categorized as 'exempt' would be overweight by federal weight limits, if not specially permitted as an overweight non-divisible load.

The WIM stations located on Turnpike segments of I-95 have the highest traffic volumes (see Exhibit A-3) and the ESAL estimates for trucks falling in the federal weight exempt category account for about one-half of the total ESAL estimate.

2. North and East Maine Stations

These three WIM stations are located on US Highways located to the north or east of I-95. All three stations record high ESAL estimates with strong directional flow, however the direction or primarily flow varies by station.

3. West and South Maine Stations

These three stations are located on state highways that connect to I-95 or the Turnpike. A high percentage of ESAL estimates at these stations result from commercial vehicle passes exceeding 80,000 pounds GVW. Two of these stations recorded highly directional flows from vehicles migrating toward the I-95 or the Turnpike.

On the following pages, Groups 1 graphs and tables are entitled "Turnpike & I-95 WIM Stations". Groups 2 and 3 are amalgamated into a single set of graphs and tables, entitled "Non-Turnpike/I-95 WIM Stations."

Observations and Assumptions from WIM Data:

- 1. The detailed data shown in the table exhibits indicate that significant proportions of the vehicles weighing over 80,000 GVW are 5 axle trucks.
- 2. It is assumed that vehicles recording GVW in excess of 100,000 are traveling on special permits and would continue on these same routes even if general weight laws changed.
- 3. In all cases, the direction and volumes of flows at specific points (the WIMS stations) can only be interpolated to impacts at other points in the network by matching these flows to overall commodity flows and their ultimate origins and destinations. This will be the next step for this analysis.

Exhibit A-1: Summary of Turnpike & I-95 WIM Station Average Daily Traffic

J				VEHICLE AAD1	E AADT			ESAL AADI	AADT		2	IILLION LBS AAD	BS AAD 1	
	NOITATS	direction	woled	EXEMPT	over	total	wojeq	EXEMPT	over	total	woled	TGMEXE	over	total
		direction	exempt		exempt		exempt		exempt	rota.	exempt		exempt	
	entral ME Turnpike	north	279		135	206	322		732	1,509	28.4		14.1	
w.	entral ME Turnpike	south	729		73	994	631		352	1,545	38.6		7.5	
\sim	South ME Turnpike north	north	1,696	101	24	1,820	1,005	296	129	1,430	81.0	8.9	2.4	92.4
\sim	South ME Turnpike	south	1,365	465	143	1,974	1,061	$\overline{}$	735	3,211	71.9		14.5	
	Central ME Interstate	north	704	82	49	836	427		252	932	34.6		4.7	
(1)	Central ME Interstate	south	999	132	69	992	421		346	1,180	29.5		6.5	
	North ME Interstate	north	330	27	7	368	232		48	354	16.7		1.0	
	North ME Interstate	south	355	24	44	424	373		239	989	20.8		4.2	

)										
				VEHICLE AADT	E AADT			ESAL AADT	AADT		M	MILLION LBS AADT	BS AAD.	
	STATION	direction	woled	KEMPT	over	total	wolad	FMPT	over	total	woled	FXFMPT	over	total
			exempt		exempt				exempt		exempt		exempt	
ÞΚ	关 Central ME Turnpike ALL	ALL	1,356	337	208	1,901		1,016	1,084	3,053	0'29	29.6	21.6	118.3
Τt	South ME Turnpike	ALL	3,061	266	167 3,	3,794	2,066	1,711	864	4,641	152.9	48.1	17.0	218.0
96	್ಲ Central ME Interstate ALL	ALL	1,270	214	118	1,602		999	298	2,111	8.89	18.0	11.2	93.0
3-I	North ME Interstate	ALL	989	51	55	791		147	287	1,039	37.4	4.3	5.2	47.0
	percent of station total (ALL directions)	al (ALL dir	rections)											

40.2% 31.5% 28.3%	14.9% 4.4% 13.3% 7.4%	80.7% 14.9% 79.3% 13.3%	_	South ME Turnpike ALL Central ME Interstate ALL
14.2%			6.4%	86.7% 6.4 %

Exhibit A-2: Summary of Non-Turnpike/I-95 WIM Station Average Daily Traffic

	Average Annual Daily Traffic -	v Traffic -	by Direction	tion										
	•	,		VEHICLE AADT	E AADT			ESAL AADI	AADT		2	MILLION LBS AADT	BS AAD	
	STATION	direction	below exempt	EXEMPT	over	total	below exempt	EXEMPT	over	total	below exempt	EXEMPT	over	total
	North ME State	north	71	27	44	142	15		271	371	2.6		4.8	10.0
ıse	North ME State	south	94	22	18	133	42	29	92	201	4.2		0.1	8.1
ə %		north	179	2	10	209	72		51	189	7.6		1.0	10.5
' 4 }	North ME US Rte.	south	128	40	35	203	117	126	188	430	6.8		3.5	13.8
JOL	_	east	136	24	18	177	9/	70	103	249	6.3		0.1	10.3
1	Eastern ME State	west	161	22	18	236	192	165	91	449	9.8	5.0	1.9	16.7
ţs	_	east	72	9	45	182	46	192	262	200	3.6	0.9	4.9	14.5
÷۷	_	west	159	13	7	178	51	37	37	125	6.7	1.7	0.7	8.5
۱ 🖇		north	133	17	80	159	4	54	44	139	5.2	1.6	0.9	9.7
lei	NW ME US Rte	south	43	29	09	162	42	179	314	535	2.3	5.2	6.4	14.2
ļue		east	69	2	19	110	30	29	129	226	3.0	1.9	2.1	7.0
ນ	Central ME State	west	29	42	18	127	40	115	112	267	3.2	3.8	2.0	8.9
		0:55°° L	-	9 9 9										
	Average Annual Dally Traffic -	ly I ramic -		Directions										
				VEHICLE AADI	E AADT			ESAL AAD1	AADT		2	MILLION LBS AADT	BS AAD	
	STATION	direction	below	EXEMPT	over	total	below	EXEMPT	over	total	below	EXEMPT	over	total
ᄖ	North ME State	ALL	165	49	62	275	57	152	363	572	6.8	4.5	6.7	18.1
ጸ	North ME US Rte.	ALL	307	61	45	413	189	191	239	619	14.4	5.3	4.5	24.2
N	Eastern ME State	ALL	297	80	36	414	268	236	195	869	16.1	7.1	3.8	27.0
Ν		ALL	231	78	52	360	26	229	299	625	10.3	7.1	5.6	22.9
8	NW ME US Rte	ALL	176	9/	69	320	83	232	359	674	7.5	7.0	7.3	21.8
၁	Central ME State	ALL	136	63	38	237	70	182	241	493	6.1	5.7	4.1	15.9
	1-1 (1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	T 1 1 4 / 1 -	(;											
	percent of station total (ALL directions	al (ALL di	rections)											
				VEHICLE AADT	E AADT			ESAL AADI	AADT			MILLION LBS AADT	BS AAD	
	STATION	direction	pelow	EXEMPT	over		pelow	EXEMPT	over		pelow	EXEMPT	over	

24.3% 33.4% 25.6%

25.0% 22.1% 26.3% 30.9% 32.2% 36.0%

37.8% 59.4% 59.7% 44.8% 34.3% 38.4%

63.4% 38.6% 27.9% 47.9% 53.2% 48.8%

26.6% 30.8% 33.8% 36.6% 34.5% 36.9%

10.0% 30.5% 38.3% 15.5% 14.3%

10.8%

17.6% 14.9%

direction

STATION

21.4% 15.9%

19.4% 21.6% 23.8% 26.7%

60.0% 74.3% 71.8% 64.0% 54.8% 57.4%

F F F F F F

37.2% 18.6% 14.0%

EXEMPT

EXEMPT

Exhibit A-3: Turnpike/I-95 WIM Stations - Total ADTT

WIM Average Daily Truck Count - Turnpike and I-95 Stations all 5 and 6 axle combination trucks, both directions

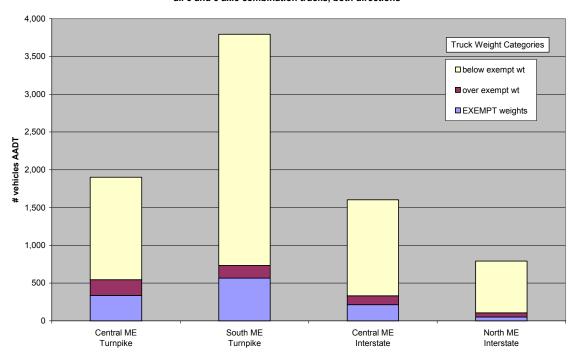


Exhibit A-4: Turnpike/I-95 WIM Stations - Total Avg. Daily ESALs

WIM Average Daily Total ESALs - Turnpike and I-95 Stations all 5 and 6 axle combination trucks, both directions

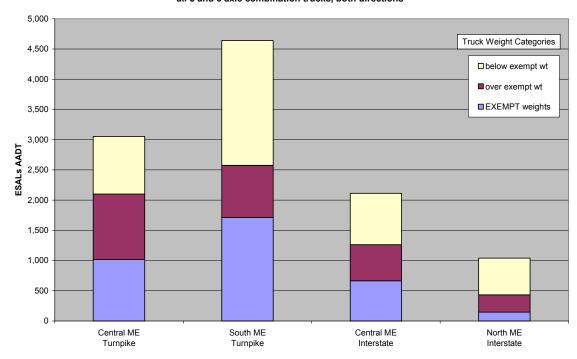


Exhibit A-5: Non-Turnpike/I-95 WIM Stations – Total ADTT

WIM Average Daily Truck Count - Non-Turnpike/I-95 Stations all 5 and 6 axle combination trucks, both directions

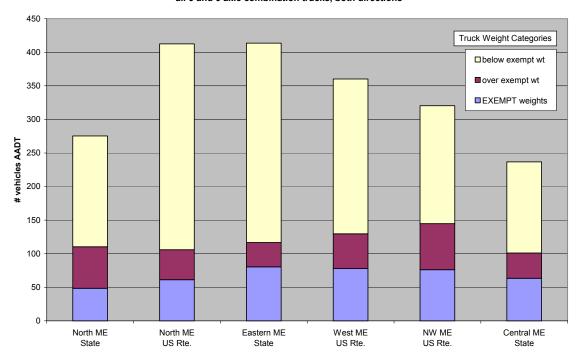


Exhibit A-6: Non-Turnpike/I-95 WIM Stations – Total Avg. Daily ESALs

WIM Average Daily Total ESALs - Non-Turnpike/I-95 Stations all 5 and 6 axle combination trucks, both directions

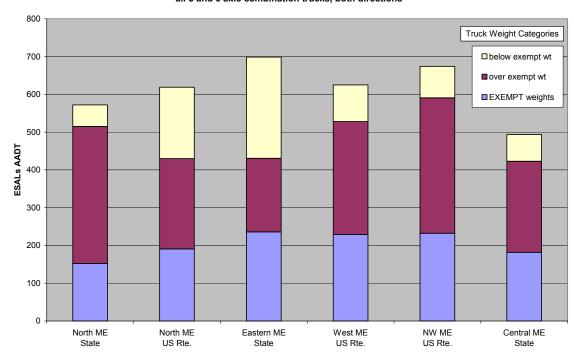


Exhibit A-7: Turnpike & I-95 WIM Stations - ADTT by direction

WIM Average Daily Truck Count by direction - Turnpike and I-95 Stations all 5 and 6 axle combination trucks

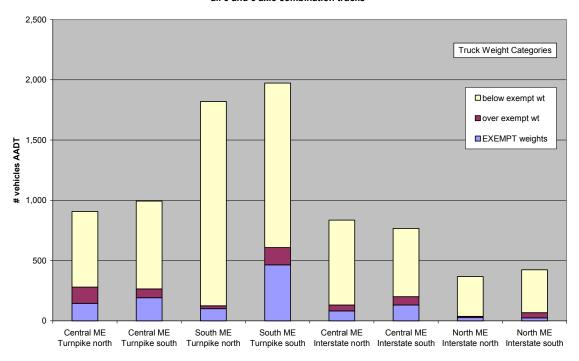


Exhibit A-8: Turnpike & I-95 WIM Stations - ESALs by direction

WIM Average Daily Total ESALs by direction - Turnpike and I-95 Stations all 5 and 6 axle combination trucks

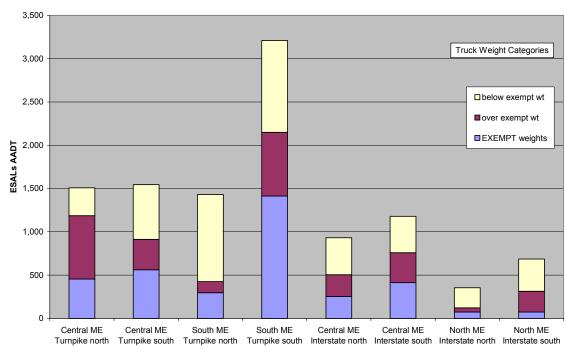


Exhibit A-9: Non-Turnpike/I-95 WIM Stations - ADTT by direction

WIM Average Daily Truck Count by direction - Non-Turnpike/I-95 Stations all 5 and 6 axle combination trucks

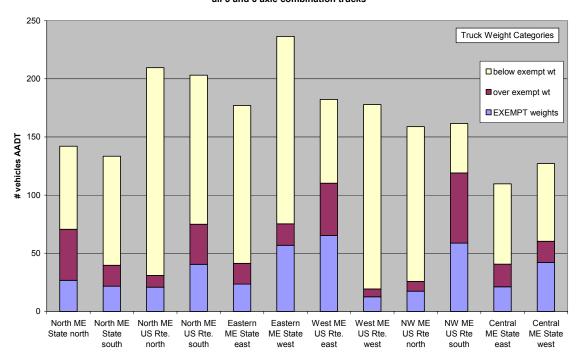


Exhibit A-10: Non-Turnpike/I-95 WIM Stations - ESALs by direction

WIM Average Daily Total ESALs by direction - Non-Turnpike/I-95 Stations all 5 and 6 axle combination trucks

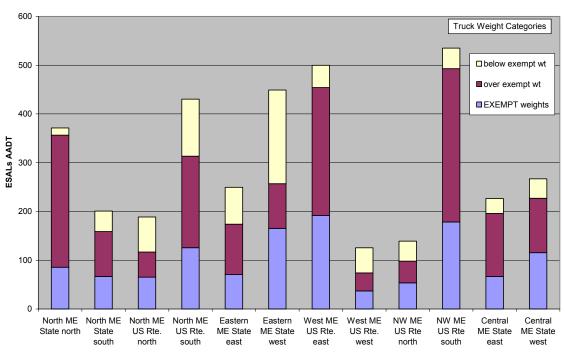


Exhibit A-11: Turnpike/I-95 WIM Stations – AADT by # of Axles

WIM Average Daily Truck Countby by # Axles - Turnpike and I-95 Stations 5 versus 6 axle combination trucks, both directions

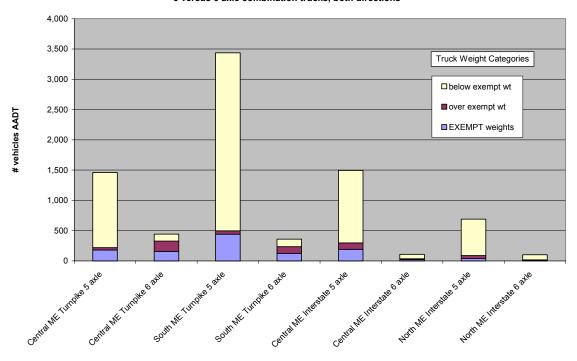


Exhibit A-12: Turnpike/I-95 WIM Stations - ESALS by # of Axles

WIM Average Daily Total ESALs by # Axles - Turnpike and I-95 Stations 5 versus 6 axle combination trucks, both directions

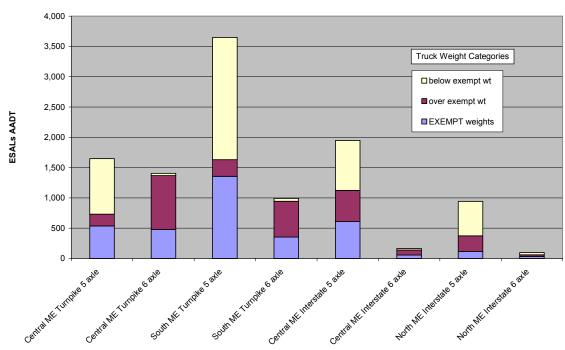


Exhibit A-13: Non-Turnpike/I-95 WIM Stations – AADT by # of Axles

WIM Average Daily Truck Countby by # Axles - Non-Turnpike/I-95 Stations 5 versus 6 axle combination trucks, both directions

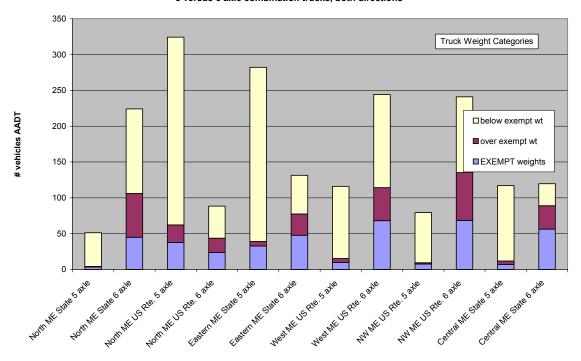
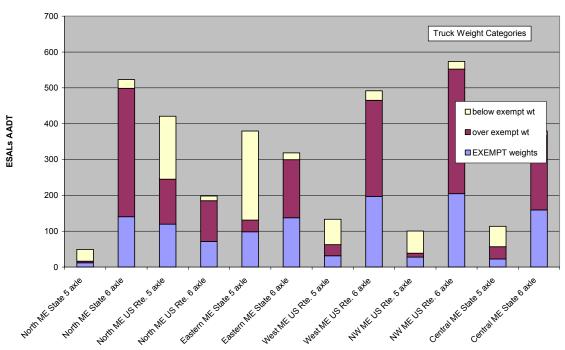


Exhibit A-14: Non-Turnpike/I-95 WIM Stations - ESALs by # of Axles

WIM Average Daily Total ESALs by # Axles - Non-Turnpike/I-95 Stations 5 versus 6 axle combination trucks, both directions



Detailed Average Annual Traffic by Station

On the following pages, detailed directional statistics are presented for WIM stations in Maine. The statistics are broken down by number of axles: either 5 or 6 axle.

The tables represent **average annual daily values** for all figures. Within each direction/axle grouping, rows of data are presented for all vehicles in the axle/weight category indicated by the row and column, consisting of *total average annual daily values for*:

- 1. vehicle count (i.e. average daily number of 5 axle or 6 axle combination trucks);
- 2. ESALs:
- 3. weight (the sum of the loaded weights of the vehicles, in millions of pounds).

The **weight category** columns divide the data by loaded GVW category:

- *below exempt wt* loaded GVW below exempt weights;
- exempt weights 5 axle with loaded GVW between 80,000 and 88,001 lbs., or 6 axle with loaded GVW between 80,000 and 100,001 lbs.;
- *above exempt wt* loaded GVW above exempt weights.

NOTE that **zero values** in the vehicle count rows are often a result of rounding daily values that are less than one vehicle, on average, per day in that weight/axle category.

Turnpike & I-95 Stations

Exhibit A-15: Central ME Turnpike WIM Station Avg. Daily Traffic

Central ME To	urnpike	wei	ght categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	1,241	180	38	1,460
5 axle	ESALs	917	538	194	1,649
	million lbs	62	15	4	81
	AADT	115	157	170	442
6 axle	ESALs	36	478	890	1,405
	million lbs	5	15	18	38
station	AADT	1,356	337	208	1,901
TOTAL	ESALs	953	1,016	1,084	3,053
101712	million lbs	67	30	22	118
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
3. 30 10.	million lbs	45%	31%	24%	

Exhibit A-16: South ME Turnpike WIM Station Avg. Daily Traffic

South ME Tur	npike	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	2,939	441	56	3,436
5 axle	ESALs	2,019	1,356	274	3,650
	million lbs	147	37	5	189
	AADT	122	125	111	358
6 axle	ESALs	47	354	590	991
	million lbs	6	11	12	29
-4-4:	AADT	3,061	566	167	3,794
station TOTAL	ESALs	2,066	1,711	864	4,641
TOTAL	million lbs	153	48	17	218
_					
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
0.101	million lbs	45%	31%	24%	

Exhibit A-17: Central ME Interstate WIM Station Avg. Daily Traffic

Central ME In	terstate	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	1,198	192	105	1,494
5 axle	ESALs	823	609	515	1,947
	million lbs	60	16	10	86
	AADT	73	22	14	108
6 axle	ESALs	25	57	83	164
	million lbs	3	2	1	7
station	AADT	1,270	214	118	1,602
TOTAL	ESALs	848	666	598	2,111
101712	million lbs	64	18	11	93
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
	million lbs	45%	31%	24%	

Exhibit A-18: North ME Interstate WIM Station Avg. Daily Traffic

North ME Inte	rstate	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	600	38	50	689
5 axle	ESALs	569	115	259	943
	million lbs	33	3	5	41
	AADT	85	13	5	103
6 axle	ESALs	36	32	28	96
	million lbs	4	1	1	6
station	AADT	686	51	55	791
TOTAL	ESALs	605	147	287	1,039
101712	million lbs	37	4	5	47
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
o. total	million lbs	45%	31%	24%	

Non-Turnpike/I-95 Stations

Exhibit A-19: North ME State Road WIM Station Avg. Daily Traffic

North ME Stat	te	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	47	3	1	51
5 axle	ESALs	33	12	5	49
	million lbs	2	0	0	3
	AADT	118	45	61	224
6 axle	ESALs	24	140	358	523
	million lbs	5	4	7	16
station	AADT	165	49	62	275
TOTAL	ESALs	57	152	363	572
101712	million lbs	7	5	7	18
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
	million lbs	45%	31%	24%	

Exhibit A-20: North ME US Route WIM Station Avg. Daily Traffic

North ME US	Rte.	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	262	38	24	324
5 axle	ESALs	176	119	126	421
	million lbs	12	3	2	18
	AADT	45	24	20	88
6 axle	ESALs	13	71	114	198
	million lbs	2	2	2	6
-4-4:- u	AADT	307	61	45	413
station TOTAL	ESALs	189	191	239	619
101712	million lbs	14	5	4	24
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
	million lbs	45%	31%	24%	

Exhibit A-21: Eastern ME State Road WIM Station Avg. Daily Traffic

Eastern ME S	tate	wei	ight categ	ory	
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	243	33	6	282
5 axle	ESALs	249	98	33	380
	million lbs	14	3	1	17
	AADT	54	48	30	131
6 axle	ESALs	19	138	162	319
	million lbs	2	4	3	10
station	AADT	297	80	36	414
TOTAL	ESALs	268	236	195	698
101712	million lbs	16	7	4	27
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
0. 1010.	million lbs	45%	31%	24%	

Exhibit A-22: West ME US Route WIM Station Avg. Daily Traffic

West ME US	Rte.	weight category			
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	101	10	6	116
5 axle	ESALs	71	32	31	133
	million lbs	5	1	1	6
	AADT	130	68	46	244
6 axle	ESALs	27	197	268	492
	million lbs	5	6	5	17
station	AADT	231	78	52	360
TOTAL	ESALs	97	229	299	625
101712	million lbs	10	7	6	23
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
3	million lbs	45%	31%	24%	

Exhibit A-23: NW ME US Route WIM Station Avg. Daily Traffic

NW ME US Rte		we			
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	70	8	2	79
5 axle	ESALs	62	28	11	100
	million lbs	3	1	0	4
	AADT	106	68	67	241
6 axle	ESALs	21	205	348	574
	million lbs	4	6	7	18
station	AADT	176	76	69	320
TOTAL	ESALs	83	232	359	674
101712	million lbs	7	7	7	22
		1			
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
	million lbs	45%	31%	24%	

Exhibit A-24: Central ME State Road WIM Station Avg. Daily Traffic

Central ME State		wei			
number of axles		below exempt wt	exempt	over exempt wt	Total
	AADT	105	7	5	117
5 axle	ESALs	57	23	34	114
	million lbs	5	1	0	6
	AADT	31	56	33	120
6 axle	ESALs	14	159	207	380
	million lbs	1	5	4	10
station	AADT	136	63	38	237
TOTAL	ESALs	70	182	241	493
101712	million lbs	6	6	4	16
PERCENT	AADT	64%	22%	14%	
of total	ESALs	16%	37%	48%	
	million lbs	45%	31%	24%	

Study of Impacts Caused by Exempting Currently Non-exempt Maine Interstate Highways from Federal Truck Weight Limits

Appendix B: Summary of Carrier/ Shipper Telephone Interviews

Interview Population

The names of companies to be interviewed came from several sources. The Maine Motor Transport Association (MMTA) provided a contact list of heavy haul companies. Approximately 20 MMTA member companies were contacted, yielding 15 completed interviews with 15 heavy haul companies. The summary results are based on the following companies:

Having a primary terminal in Maine:

- Cianbro Corporation
- Cousineau, Inc.
- Currier Trucking Corp.
- Dead River Transport
- Dysart's Transportation, Inc.
- Genest Concrete Works, Inc.
- H. O. Bouchard, Inc.
- Irving Oil Corporation
- K-B Corp.
- N. C. Hunt, Inc.
- Orland Dwelly & Sons, Inc.
- Richard Carrier Trucking, Inc.
- Isaacson Lumber Co.
- Paulson Brothers Transportation, Inc.
- J&S Oil Co., Inc.

Interview Protocol

The interviews for this study were conducted over two time periods. The first series of interviews were conducted between October 11 and November 12, 2002. A second group of interviews were conducted between June 30 and July 11, 2003. The interview protocol was pre-tested to determine if the line of questioning produced usable data. Results from the first series of completed surveys prompted several additional questions to be added to the second round of interviews. The new questions asked for details about vehicle configuration, e.g., number of axles, whether the carriers used tridem-axle trailer configurations and whether these trailers had lift axles; if the lift axles were original equipment or retrofitted; and what type of suspension systems where used. Several other questions were added regarding the average wage of a driver and the expected cost of a new five-axle tractor-semi-trailer. A copy of the final survey instrument is included at the end of this summary.

Survey Response Summary

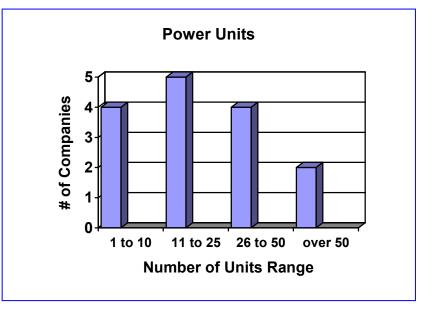
<u>Contact at Organizations Interviewed</u>: The individuals interviewed knew the operations and routing used by the company for its heavy load movements. Among the titles of the individuals interviewed were:

- Dispatcher Transportation Services / Heavy Haul Division
- Traffic Manager
- Manager Construction Division
- Fleet Manager/Transportation Division Manager
- Operations Manager
- General Manager
- Transportation Manager
- President/Owner

<u>Location</u>: A majority of companies interviewed in Maine were located off Route 2, near Augusta, Rockland, Hampden, Hermon, Bangor, Pittsfield, Skowhegan, and Bucksport. Two companies were located in the southern part of the state in Sandford and Jefferson. As can be expected, these companies use the Maine and New Hampshire Turnpikes extensively for movements in the southern part of Maine and to the south and west.

<u>Power Units</u>: Companies interviewed had a variety of power units. Most units were owned, however one company hired over half of its units. The companies operate five-and six-axle vehicles, used for in-state deliveries and over-the-road hauling. One company mentioned it used its six-axle vehicles for 80,000 lbs GVW loads as needed/available. The chart above provides a distribution of carrier size based on power units.

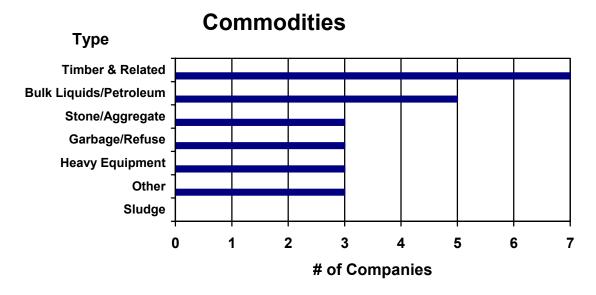
Type of Carrier: Out of 15 companies, 6 described their operation as "for hire." The remaining hauled their own products and considered their transportation operations as private carriage. Twelve of companies interviewed considered their operation a "truckload" carrier. Two carriers described



themselves as providing "specialized" services, requiring moves to be permitted, which they receive for the size as well as the weight of the loads.

<u>Competition</u>: For companies hauling wood products (e.g., bark, logs, wood chips) competition comes from within Maine and New Hampshire, as well as other New England states and Canada. For companies hauling bulk liquids, e.g., petroleum, the competition is mainly considered as coming from within New England. Larger petroleum companies have "sister companies" in Canada, precluding competition between companies of the same parent. Companies hauling stone and aggregate or asphalt reported that their primary competition comes from within the state in which they are located. One company carrying cement saw competition from both within the state and from other New England states.

<u>Primary Commodities</u>: The primary commodities hauled by the companies interviewed are timber and related products e.g., unfinished – bark, logs, wood chips, and finished – lumber and other products; bulk liquids e.g., chemicals, gasoline, and fuel oils; stone and aggregate; garbage/refuse, including biomass; heavy equipment, e.g., construction equipment; and other commodities described as concrete and landscaping block, coal, salt, cement, asphalt and some mixed consumer products.



Note: Chart reflects multiple answers from respondents -some companies haul more than one commodity.

<u>Geographic Area</u>: 12 of 15 companies interviewed operate within the New England region – describing their operation as regional or interstate New England. Four companies operated over-the-road divisions in the eastern U. S., which haul 80,000 lbs. None of the companies interviewed considered their operations international, however one company reported having primary destinations in Quebec. No company described itself as local.

Origins and Destinations and Primary Routes: Many of the companies interviewed were strategically located near major arterials in Maine including Turnpike and/or Interstate Highways. Primary routes for hauling petroleum products include origins at marine terminals in Searsport, Bucksport, Portland, and Portsmouth and destinations throughout Maine and New England, e.g., Houlton, Bangor, Wiscasset, Brunswick, and into New Hampshire, Vermont, and south. Timber-related movements have origins and destinations at major facilities such as Calais, Jay, Millinocket, Jackman, and Skowhegan. One company hauling biomass/refuse has a major contract for movements between East Millinocket via Rochester, NH, and Boston. Other hauling of biomass/refuse reported by respondents is between Waite and Ashland, Bath and Brunswick, and Biddeford and Augusta. Companies hauling commodities such as finished wood products, concrete block, chemicals, cement, and aggregate described primary movements, from mid-state north toward Presque Isle, mid-state Bangor or Pittsfield and west to New Hampshire, Vermont, and New York, and a coastal route east.

The Maine Turnpike is a primary route for through movements with origins/destinations south of Maine. Routes 1 and 201 are also a primary routing used between Portland and Augusta. A number of operators cited the lost time involved with continuing on the Maine Turnpike north of Portland. In addition, movements going east to Rockland and Thomaston require using Route 1 rather than the Maine Turnpike.

(Additional routing details are provided in a table at the end of this document)

A majority of the companies that were interviewed in New Hampshire operate or are located in the southern part of the state. Petroleum hauling companies interviewed are located in Concord, Henniker, and Lebanon. In addition to their terminal locations, origins in Massachusetts (Boston) had destinations in Lebanon and Concord, using I-93 and Route 3 and Route 4. Other movements identified were from Portsmouth to Henniker via the New Hampshire Turnpike, Routes 101, 3, and 4. Portsmouth to Newport follows the Turnpike, Routes 4 or 101, Route 4, 9/202, 114 and 103. Trips from Concord to Portland primarily use Route 101 and the New Hampshire and Maine Turnpikes. Additional moves are near Lake Winnipesaukee – Portsmouth to Wolfeboro, via Routes 16, 11, and 28. Other destinations near the lake require the use of Routes 9, 11, and 25.

Overall, the respondents reported significant north-south movements with relatively few routing choices. As one company representative said, "Route 3 is just about the only legal route there is for north and south movements for heavy loads." Routes 101, 4, 202, and 2 were the most commonly mentioned east-west routes. A number of respondents also reported that they hauled heavy loads on small segments of the Interstate system that conveniently connected some of these routes.

On the whole there was considerable consternation regarding the inability to legally use all segments of Interstate in Maine. The primary reasoning from the respondents was that "the interstates were built to carry 100,000 lb vehicles." Several mentioned that the system was originally designed as the national military network and therefore was also equipped to carry their heavy loads. A number of others interviewed could not understand the reasoning of forcing heavy vehicles onto state routes where they were required to go through population centers, deal with congestion and tourists, and in general, create increased opportunity for a major catastrophe whether it would be loss of life or contamination of a waterway/seashore. One respondent was convinced that it would take such a major event to begin the process of change.

The routes discussed were mentioned again and again by the various companies interviewed. While the number of companies interviewed was relatively small, the convergence of the routing decisions shows that even a small representation of haulers may be providing a picture of the routes upon which a high percentage of heavy loads are being transported. Additional information on the origins and destinations and routing decisions are included at the end of this summary.

Shortest Distance vs. Circuitous Routing: All of the respondents said they route their movements to obtain the shortest distance between pick-up and delivery. Yet each one had major exceptions to this rule, which always made the routing less than the shortest distance. The common refrain from the companies was the shortest distance was often the interstate system. However their movements took longer routes because of the inability to use the interstate system other than the Maine Turnpike and a small length of I-95 near Kittery. One respondent couldn't understand why the political process enabled that stretch of I-95 to be allowed to carry 100,000 lbs GVW. Yet, it was his belief that when petitions for use by heavy hauling companies on other parts of the interstate were

presented, they were turned down flat because "such exemptions are not allowed by the federal government." In addition, several respondents were puzzled over the DOT's actions to build a third bridge in Augusta. The bridge is to mitigate congestion, yet the trucking operators thought there could be a great deal of congestion relief (perhaps eliminating the need for a third bridge) if the heavy trucks could use the interstate through Augusta.

The weight restrictions were an underlying reason for more circuitous routes, but nearly every company specifically mentioned safety issues as the number one reason for less than shortest distance routing. Other frequently mentioned situations causing routing changes are winter weather, highway construction, and traffic congestion, particularly in the tourist season

The heavy equipment hauler noted that they could not haul over-dimension vehicles on the Interstate System (permitted vehicles) from Friday noon until Monday morning. This respondent thought it made no sense to force the large over-dimension traffic on small roads going through towns and population centers. This same respondent noted that overweight vehicles (greater than 80,000 lbs GVW) could not use the bridge at Brattleboro until the construction is complete.

Every one of the respondents at some point during the interview mentioned that they could not travel on the Interstates, except the Maine Turnpike.

<u>Driver Challenges</u>: The most often cited challenges for drivers were the requirement for movements of 100,000 lbs GVW vehicles on narrow two-lane, two-way roads and through small towns and population centers. Rotaries and stop-and-go traffic, e.g., congestion, school busses, were particularly troublesome for drivers. High crowned roads present further challenges for drivers, as the vehicles tend to rock back and forth, e.g., Route 11, Brownsville to Millinocket.

Augusta was cited as a particularly difficult area for drivers. After exiting from the Maine Turnpike, the various rotaries that the heavy vehicles must negotiate were seen as very dangerous and unnecessary considering that the interstate continues north and the heavy loads could be using these highways.

Companies that operate vehicles on Route 1 in Maine cited the Freeport, Rockland, and Camden areas as major problem spots due to tourists and the resulting congestion. One respondent said, "The Route 1 corridor is a nightmare." Petroleum haulers were particularly concerned about the frequent trips of these hazardous materials through such congested areas (automobile traffic as well as commercial establishments.)

Route 201 from Augusta to Fairfield is seen as a problem stretch of roadway – it takes longer and is considered dangerous. This stretch of Route 201 directly parallels the interstate. Many of the drivers compare this roadway to the well-maintained, free-from-population-centers interstate and know the road they must travel poses additional safety hazards.

Drivers find the Bangor area a challenge, considering that the vehicles must travel through the city to follow Route 2.

Route 69 in winter is a problem and routing is modified to bypass this stretch of roadway.

Route 2A is particularly difficult for drivers in the spring due to potholes and deteriorating pavement. One respondent said his company reroutes traffic in the spring to Route 1 to avoid 20 mile per hour travel over rough pavement.

<u>Performance of Six-axle Vehicles</u>: None of the respondents were aware of any complaints with the performance or operation of six-axle vehicles greater than 80,000 lbs GVW. The general comment was that overall there are no more complaints about six-axle vehicles than five-axle vehicles. A number of the respondents said the six-axle vehicles had better braking capabilities, more stability, and generally had greater power for keeping up to speed in the traffic flow. One responder said, "We love them; you can never have too much brakes." Another said his drivers prefer the six-axle combinations because they "hold up better" and "are safer." Another respondent said they are no different; if you have a good driver who handles the vehicle well, both are the same.

The following issues were included during the second round of interviews and are based on a smaller sample.

<u>Record-Keeping Exemption – 100 Air-miles</u>: Companies varied on their use of CFR 391, which exempts a carrier for operations within 100 air-miles from hours of service, driver qualification files, and other vehicle maintenance record keeping.

<u>Equipment</u>: Companies located in Maine operated on average about 9 TST combinations (all TSTs, not only those located in the company's primary terminal.)

About 40 percent of the TST combinations operated by the companies have 5 axles. The remaining approximately 60 percent are 6-axle combinations. A few respondents (for example the heavy equipment hauler) reported that their companies also have a few 4-axle trailers.

About 90 percent of the 5-axle vehicles are registered to haul 88,000 lbs. All of the six-axle TST combinations are registered to haul up to 98,000 to 100,000 lbs. All but one of these trailers had a tridem axle. In addition, respondents reported that all but a very few of the tridem axle trailers were original equipment with the remaining few being retrofitted to the trailer at some point after the initial purchase.

Respondents in Maine reported that one company had tridem axle trailers with spring suspension, one company had trailers with air ride suspension, and one company had a combination of both spring and air ride suspension on its tridem axle trailers. Respondents from companies in New Hampshire reported: 4 air ride, 3 having both air ride and spring, and 2 did not know the type of suspension on their tridem axle trailers. The following table summarizes the fleet size of all carriers interviewed

Respondents estimated the cost of a new 5-axle tractor-semi-trailer combination would

average about \$160,000. Estimates ranged from about \$105,000 to \$190,000.

Assuring Vehicle Loads Do Not Exceed Legal Limits: For the most part every company interviewed has some strategy to assure that their vehicle loads do not exceed the legal limit. The petroleum product haulers all reported that they know the weight of the product and the capacity (volume) of each of their vehicle configurations, which assures a legal limit. Like the petroleum product haulers, the cement and asphalt haulers interviewed also know the amount of product their vehicles carry and its weight. The stone and aggregate haulers reported that they have scales in their yards.

One dispatcher that was interviewed had the responsibility for checking the vehicle weights. The vehicles do not go out of the yard prior to weighing and assuring a legal load. Some of the vehicles operated by one of the forest product haulers vehicles have on-board scales. (This was the only company with such equipment.) This company also pays the drivers by the hour, so there is no advantage to overload. A petroleum products hauler noted that if a driver gets fined for carrying an overweight load, the driver must pay the fine. The heavy equipment hauler stated that they know the weight of the equipment and determine their gross vehicle weight based on these facts. Only one of the companies interviewed stated that they rely on the experience of the driver and that there are a lot of available scales.

<u>Average Driver Wage</u>: Driver wages varied depending on several factors: the type of vehicle, the experience of the driver, and the hours/days worked per week. Sample responses included the following:

- \$12 \$20 per hour depending on the type of vehicle
- \$15 \$20 per hour
- \$650 \$850 per week for a good driver with either a 56 or 60 hour work week
- \$40,000 \$50,000 per year with either a 56 or 60 hour work week
- \$27,000 \$30,000 per year, 5 days per week home every night
- \$14 per hour

Including all the responses produces an average wage of \$15 per hour wage.

The average wage of a driver for the three companies interviewed in Maine is \$14 per hour. As information, these three companies hauled forest products, cement and stone/aggregate, and petroleum products. There was little variation in the reported estimated wages from each of these three companies.

For the companies interviewed in New Hampshire, the wage calculated from averaging all 8 responses is \$15.30 per hour. The three petroleum products haulers and the heavy equipment hauler estimated from \$1 to \$2.50 higher per hour than the average wage paid, e.g., \$16 - \$17.50 per hour average. Several of the asphalt and stone/aggregate and forest product haulers paid \$1 - \$2 dollars less than the average for all companies interviewed in New Hampshire, e.g. \$13 - \$14 per hour.

Summary of Interviews with Maine Local Officials

Interviews were conducted between July 29 and August 6, 2003. The local officials contacted or interviewed are as follows:

- Edward Barrett, City Manager, Bangor, ME
- Jim Ring, City Engineer, Director of Infrastructure & Development, Bangor, ME
- Stephen Bost, City Manager, Brewer, ME
- John Douglas Harris (Doug), Town Manager, Falmouth, ME
- Ed Tolan, Chief of Police, Falmouth, ME
- Dale Olmstead, Town Manager, Freeport, ME
- Darrell Fournier, Fire Chief, Freeport, ME
- Margaret Daigle (Peggy), Town Manager, Houlton, ME
- Dan Soucy, Chief of Police, Houlton, ME
- Glenn Aho, Town Manger, Lincoln, ME
- Jim Libby, Town Councilor, Lincoln, ME
- Nathaniel Tupper (Nat), City Manager, Yarmouth, ME
- Michael E. Morrill, Police Chief, Yarmouth, ME

Questions focused on three areas, impacts of large trucks in the community, complaints to the town or city about large trucks, and anecdotal information about truck crashes in the community.

The interviewee's concepts of impacts of the large trucks traveling on the town or city streets mirrored the complaints received from community members. The issues centered on safety, traffic congestion, air and noise pollution, road maintenance, economic consequence to business and disturbance of the pleasant village center ambience.

Overall, impacts of large trucks in these communities are considered very significant. In fact, without exception, every local official interviewed expressed strong personal and community support for allowing large, heavy trucks on the interstate system in Maine. One official said, "I don't know a single local official [in Maine] who wouldn't want big trucks on the interstate." Another said, "It is a poor policy to not have the big trucks on I-95." Furthermore, one town manager stated that there were many fewer complaints about a major arterial that parallels a section of the Maine Turnpike, now that the heavy trucks are traveling on the Turnpike instead of through his town.

The primary concern to the town government and residents alike is safety. The most often mentioned safety concern is the increased risk of injury and property damage due to crashes in town centers and residential areas. Frequently mentioned as being at risk were pedestrians, including children and children on bicycles, school buses, and sightseers/tourists. A town manager said, "We are never free from accommodating trucks." Community activities take place in the center of town. There are blind spots due to the rise and fall of the roadway, a truck comes over the crest of a hill and suddenly may find itself in a high pedestrian event.

Further concern was expressed about hazardous materials, e.g., fuel oil and gasoline, being transported through major population centers. The greater the number of tanker

trucks, the greater potential for a catastrophic crash and loss of life as well as the problems associated with hazardous materials cleanup.

Truck speed is a problem in many of the towns. One Chief of Police personally stopped a truck that refused to stop at a traffic light in the center of town. The driver just "blew through" the light. The driver's comments to the officer were that until the laws were changed to allow him to drive his heavy truck on I-95, this same driving behavior will continue to occur. Another town manager reported that in the spring there is greater malfunction of traffic lights causing the lights to blink. The large and heavy through trucks take these blinking lights as a right-of-way and "barrel through" the center of the town. One city manager reported that, "We spend an inordinate amount on enforcement, which is not always successful."

Several local officials reported that the town center businesses were affected by the heavy truck traffic. With large trucks on the main street, it is difficult for locals to patronize businesses -- whether they are pedestrians or trying to park their cars. Other issues such as exhaust fumes from trucks idling at stoplights made it unattractive for shopping.

Congestion is a critical issue within most of the towns and cities. Due to small town centers and the effort to make these areas "shopping-friendly villages," large trucks substantially increase the lack of maneuverability for residents as well as tourists. Several towns have their emergency services located on the main street, which is the state route thoroughfare. With multiple tractor-semi-trailers lined up, it is very difficult to respond to emergency situations, or it is much more difficult for these emergency vehicles to emerge into the roadway with the large trucks. A number of the towns report there is continual summer stop and go traffic.

Noise and air pollution are major quality of life issues in residential areas through which large trucks travel. Jake brakes and exhaust fumes are especially disruptive and intrusive to the community residents. Several towns that have state routes through residential neighborhoods have bans on jake brakes, yet the interviewees report the ordinances are often not obeyed. Additionally, Maine residents have lots of open windows in the summer. The exhaust fumes are annoying and can create respiratory problems

Every local official interviewed made some reference to the increase in cost of road maintenance due to the damage from heavy trucks. One town manager reported that the town builds its main arterial, a state route used by heavy trucks, to a higher standard than if only local traffic used the roadway. This town manager reported it costs "lots more" to maintain this roadway, perhaps more than twice as much as other town roads. Another manager reported that his town's maintenance costs for Route 1 would drop by 40 percent if there were no heavy trucks on it. Additionally, "Pothole damage is unbelievable in the spring, and trucks make that situation worse." One local official commented that since Maine is turning back sections of Route 1 to the towns and cities, there is now more cost for road replacement as well as repair. With current budgets there is little room for high cost road maintenance.

The general opinion of the local officials was that the interstate was built to handle the heavy loads that are traveling through their towns. A number of the officials stated that

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the interstate was designed to carry 100,000 lb gross vehicle weight vehicles (GVW). One official noted that the Maine needs were not the same as needs addressed by the federal laws, which kept the 100,000 lb GVW vehicles off the interstate.

The local officials also made comments about the interstate being a more efficient manner of transport for the trucking companies. A number of the interviewees expressed concern that the current laws were not only having negative impact on the communities, but also creating higher costs for the transportation companies.

Accidents are a common occurrence in a number of communities. Several town managers or other officials reported the following:

- We do have crashes on occasion. Often these are not notable but we do have them. There was a high-profile accident three years ago -- a collision between a tractor-semi-trailer and a motorcycle -- resulting in a fatality.
- We have numerous crashes; most occur on the ramps from the Turnpike spur and I-295. The ramps were designed a long time ago. Requests to the state for more visible warning signs have not been heeded. One ramp in particular continues to experience rollovers, puts traffic to Route 1
- Impact of these crashes on the community is large. They create extended time for fire fighters, city police, and state police uses huge amount of resources each time there is a crash, and there is a very large backup on Route 1 impacting motorists as well.
- There was a very high profile rollover, truckload of 20 million bees; we got advice from an expert on how to manage the bees, fog/mist spray of water, no one hurt, roadway closed for extended time -- a big resource commitment for the community.
- Had a tanker that was parked in a rest area at exit 19 of I-95, ruptured, was a bad situation for contamination, yet even with three hotels near, it was substantially less of a problem and less difficult to clean up, than if it had happened in the town center area where the risk of exposure is so great.
- People were not paying attention to traffic, gawking at a yard sale, truck rearended car. In these cases, the truck driver gets blamed for the crash, yet the residential/local conditions are contributory.

In summary, heavy trucks produced substantial negative impact in all of the seven communities participating in this interviewing effort. In fact there were no reported benefits of 5 and 6 axle tractor semi-trailers traveling on these communities' roadways. Complaints about large and heavy trucks from the residents and the local officials descriptions of the impacts showed that safety, noise and air pollution, congestion, road damage, and crashes were the major concerns. Without exception, the local officials expressed support for allowing heavy trucks up to 100,000 lb GVW on the interstate system in Maine.

Interview Protocol Maine Local Officials

Hello, my name is Barbara Harder. I'm a transportation consultant who is part of the Wilber Smith team conducting a study for the Maine Department of Transportation. I believe last week you might have gotten a fax from Tim Bolton, Office of Freight Transportation, Maine DOT. The study we are working on is to determine the safety and infrastructure impacts of extending the state truck weight limits to the interstate highway system. Presently except on the Maine Turnpike, truck weight limits on the interstate are under federal law which allows significantly lower weight limits than the State of Maine, resulting in the diversion of trucks over 80,000 lbs gross vehicle weight to adjacent state highways. The reason I am contacting you is to hear your thoughts and get your observations on the effect of current heavy truck traffic in your city and to understand what you think might be the effect of allowing these heavy trucks to travel on the nearby interstate highways.

I have a few questions I'd like to ask you; it will take less than ten minutes.

Think about where these trucks frequently travel in your city.

3a. (If yes) What were the circumstances of the accidents?

The trucks I refer to in these questions are the 5 and 6 axle tractor semi-trailer combinations.

city?

4. Is there any additional comment you would like to make about heavy trucks in your



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Maine Weight Exemption Study Carrier Interview Survey

Company Name:

____/____/03

	Location/Address:	
	Contact:	Title:
	Phone:	e-mail:
	Purpose:	
	 Develop an operating profile for heavy haul Understand operating economics for heavy Explore routing decisions based on various to I-95 and the Maine and New Hampshire 	haul carriers in Maine. weight policies that could potentially be applied
Back	ground:	
1.	Are you a private or for-hire carrier?	
a	For-hire (skip to Q4) b Prival	ate
2. W	That is the primary business your company is e	ngaged in?
	Where does your primary competition core/New Hampshire)?	me from within your industry (outside of
(Skip	to Question 6)	

Commodities / Services:

4. As a for-hire carrier, do you have prima majority of your business?No		nodities or lines of business that comprise the uestion 5),
Ye	es; what a	are those primary commodities?
a Timber or Related Products	b	_ Stone or aggregate
c Garbage or refuse	d	_ Sludge
e Bulk liquids (e.g. petroleum)	f	Heavy Equipment
g Agriculture products	g	Other:
5. How would you describe your services ((check all	that apply)
a LTL b Truc	ekload	c Express Package
d Intermodal drayage		e Specialized
f. other		
Geography and Routing:		
6. Do you operate more than one truck term	minal in	either Maine or New Hampshire?
No (go to question 7)		Yes,
6a. At what other locations and app	oroximate	ly how many trucks?
Location		# of Trucks
a		
b		
c		
7. What type of geographic area does your	r trucking	operation cover?
a Local	b	Regional (intrastate Maine/Intrastate NH)
c Regional (interstate New	/ England)
d Long haul domestic	c	_ Long haul international (what provinces?)

	your fleet under the intrastate 100 air-mile exemptingts carriers from hours of service, driver qualificated keeping).	
No	Yes: How many units?	
9/10. What are the primary origins a	and destinations for the commodities you haul?	
<u>Origin</u>	Destination	
a		
Route		
b		
Route		
c		
Route		
d		
Route		
(If I 05 or the Maine/New Hamshir	re Turnpikes are not mentioned above ask specifically	<i>7</i>)
(11 1-75 of the Manie/New Hampshin	to Turnpixes are not including above ask specifically	<i>(•)</i>

11. Do your drivers generally use routes that are either the shortest distance or those that require the least amount of time between the pick up and delivery?
Shortest distance
Least amount of time
12. Are you aware of any routes that are avoided due to bridge postings or weight restrictions or clearance restrictions? If so, what are those routes?
13. In using these routes are you aware of any specific challenges your drivers face on these routes, for instance areas where there are frequent accidents or near misses, routes through congested areas or places where it is difficult for a truck to maintain the flow of traffic.
Equipment:
14. How many power units do you operate out of your location?
a 1-10 b 11-25 c 26-50 d over 50
15. For the fleet at your location, how many units or roughly what percentage are 5-axle tractor-semi-trailer combinations?
15a. How many of these units are registered to haul 88,000 pounds?
ADD: What is the typical cost of a new tractor-semi-trailer rig?

semi-trailer	combinations? If the resp How many of these units are register	ondent operate	s six-axle TST combinations:
	Do the semi-trailers in your six axl	•	, <u> </u>
	No, if no skip to #17	Yes;	
16c. Were the	ne tridem axles on these semi-trailers s a retro-fit?	s purchased as or	riginal equipment, or was a third
	Original equi	pment	Retrofit
16d.	Do any of the axles in the tridem ax	le set operate as l	lift axles?
	No	Yes	
16e.	What is the typical type of suspension	on system on you	ır tridem axle trailers?
•	u or any of your drivers that you or operation of six axle vehicles gre		· ·
18. What p exceed legal	practices or step does your company limits?	y undertake to e	ensure that vehicle loads do not
on the Mair	are likely very aware – Congress hat ne and New Hampshire Turnpikes axle configurations. How important	that allows a g	ross vehicle weight of 100,000
a	Essential/very important	b In	nportant
c	Some what important	e No	ot very important
Why?			

weight limit on the Turnpike sections of I-95 back to 80,000 pounds, how would it affect your operation?
anew equipment
badditional drivers / additional shifts
c reroute existing equipment: What alternative routes would be used?
d Other:
Add 2. What is the average wage of a truck driver in your state?
21. Has your company attempted to place a monetary value on the effect of the exemption or its loss?
NOYes, would it be able to share that impact with us
22. If Congress would decide to allow up to 100,000 GVW on the entire length of I-95 in Maine, how would that decision likely affect your business?
Routing Details gathered during the course of all interviews are provided in the table on

20. If Congress decided to discontinue the weight exemption on the Turnpike, and reduce the

the following pages.

Routing Details from Survey Responses

Origin	Destination	Primary Routes	Commodities	Comments
Bangor	North toward Presque Isle/Ft. Kent	Rte 2	Chemicals, fuel oils, coal, road salt, cement,	Would be nice to use I-95
Bucksport	Middle of state, Augusta, Lewiston, Waterville	Rtes 3, 139	aggregate	
Portland	Lewiston	ME Turnpike		
Augusta	Fairfield	Rte 201		Major problem should use I-95
Thomaston	Massachusetts or North	Rtes 1 or 2		
Bangor	Calais	Rte 9	Bulk rolled paper	
Lincoln	Houlton	Rte 2	Petroleum products	
Portland	Bangor	ME Turnpike, North of Augusta, Rte 9	Petroleum products	
Hampden	South out of New England	ME and NH Turnpikes, interstates		80K lbs
Jackman	Poland Springs	Rte 201, ME Turnpike	Lumber, chips, bark Aggregate	Wants to use Interstate between Fairfield and
Skowhegan	Bangor	Rte 2		Augusta
Fairfield	Millinocket	Rte 2, 11		
Pittsfield	Glens Falls, NY	I-95, 495, 290, 90, 87	Construction	All are permitted,
Pittsfield	Troy, NY	I-95, Rte 101, I-93, 89, Rte 4, I-87, Rte 9	equipment, steel, lumber forms,	heavy and oversize
Pittsfield	Northern VT	Rte 2	building materials	
Strong	South to NH	Rte 4 to Auburn, ME Turnpike to Exit 5 Rte 11 and 202	Finished wood products Construction	
Strong	North, Ashland area	Rtes 4, 2, 11	equipment	
Coastal Route Augusta	East	Rte 3		
Bangor	Lincoln	Rte2	Wood chips and	
Stratton	Bucksport	Rte 2	logs	Every day run
Coming North into ME	Showhegan	NH and ME Turnpike, Rte 201 at Augusta	1053	
Brownville	Millinocket	Rte 11		Frequent run

Origin	Destination	Primary Routes	Commodities	Comments
Operations within		Rte 2		
100 miles of				
Showhegan	In Ilimables	D4o 2		Would love to use
Stillwater	Jay, Hinckley, Millinocket	Rte 2		Would love to use interstate for
	Willinocket			heavy loads
Portland	Rockland	Coastal road doesn't	Petroleum	ineury round
		follow Turnpike, Rte		
		1		
Portsmouth	Portland	ME Turnpike		*** 1111
Portland	Brunswick	Rte 1 through		Would like to use
Sagraport	Waterville	Freeport Rtes 3, 201		295/95
Searsport Bangor/Brewer	Houlton	Rtes 2, 2A, 9, 178		Up to 10 loads a
Bangor/Brewer	Houiton	Rtes 2, 211, 7, 176		day
Washington County	Aroostook County	Rtes 1, 2, 212, 11	Biomass, Chips	J
(Waite)	(Ashland)			
Sanford	South into	Rte 109, ME	Concrete blocks,	Empty uses
	Massachusetts	Turnpike	landscape blocks	Interstate, return
		Rte 236, ME		loaded on
		Turnpike		alternate routes as required
Sanford	New Hampshire	Rte 202		required
Sanford	North via Biddeford	Rte 111, ME		
		Turnpike		
		North of Augusta,		
		Rte 9		
Sanford	Thomaston	Rte 1		
Lubec	New Hampshire	Rte 9, ME Turnpike	Bark, logs, wood	
Skowhegan	Jackman and into Quebec	Rte 201 into Quebec	chips	
Jefferson	South	Rte 126, to ME		
<u> </u>	D 11 1	Turnpike at Auburn		
Augusta	Rockland	Rte 17		
		Rte 1 and 201 absolutely vital		
Searsport/Bucksport	Houlton	Rtes 3 or 1, 1A, 2	Petroleum	
Searsport/Bucksport	Portland	Rte 3, ME Turnpike	products	
Portland	Brunswick,	Rte 1		
	Wiscasset			
Portsmouth	Conway, NH	NH Turnpike, Rte 16		
Searsport/Bucksport	Littleton, NH or	Rtes 1A, 69 (not in		In winter go up to
	Lyndonville, VT	winter), 2		Hermon and take
East Millinocket	Rochester, NH and	Rte 157 to	Refuse and	Rte 2 Not using
Last willingocket	Boston, MA	Rte 157 to Mattawamkeag,	biomass and	Not using interstate adds an
	2000011, 17111	Rtes 2, 178, 9, I-395,	OTOTILLOS	hour to the time
		Rte 202, 9, to Auburn		between E.
		and ME Turnpike,		Millinocket and
		NH Turnpike		Augusta

Origin	Destination	Primary Routes	Commodities	Comments
Boston	Hampden via	Interstates to NH and	Waste products for	Backhaul, 80,000
	Rochester NH	ME Turnpikes and	land fill	lbs
		Interstate to		
		Hampden		
Bath	Brunswick	Rte 1	Refuse and	
Biddeford	Augusta	ME Turnpike	biomass	
Bangor	North toward	Rte 2	Chemicals, fuel	Would be nice to
	Presque Isle/Ft.		oils, coal, road	use I-95
D 1	Kent	D: 2 120	salt, cement,	
Bucksport	Middle of state,	Rtes 3, 139	aggregate	
	Augusta, Lewiston, Waterville			
Portland	Lewiston	ME Turnpike		
	Fairfield	Rte 201		Major problem
Augusta				should use I-95
Thomaston	Massachusetts or	Rtes 1 or 2		
	North			
Bangor	Calais	Rte 9	Bulk rolled paper	
Lincoln	Houlton	Rte 2	Petroleum	
			products	
Portland	Bangor	ME Turnpike, North	Petroleum	
		of Augusta, Rte 9	products	0.077.11
Hampden	South out of New	ME and NH		80K lbs
т 1	England	Turnpikes, interstates	т 1 1'	TY .
Jackman	Poland Springs	Rte 201, ME	Lumber, chips, bark	Wants to use
		Turnpike		Interstate between Fairfield and
Skowhegan	Bangor	Rte 2	Aggregate	Augusta
Fairfield	Millinocket	Rte 2, 11		Augusta
Pittsfield	Glens Falls, NY	I-95, 495, 290, 90, 87	Construction	All are permitted,
Pittsfield	Troy, NY	I-95, 495, 290, 90, 87	equipment, steel,	heavy and
Tittsheid	110y, 111	89, Rte 4, I-87, Rte 9	lumber forms,	oversize
Pittsfield	Northern VT	Rte 2	building materials	
Strong	South to NH	Rte 4 to Auburn, ME	Finished wood	
8		Turnpike to Exit 5	products	
		Rte 11 and 202	Construction	
Strong	North, Ashland area	Rtes 4, 2, 11	equipment	
Coastal Route	East	Rte 3		
Augusta				
Bangor	Lincoln	Rte2	Wood chips and	
Stratton	Bucksport	Rte 2	logs	Every day run
Coming North into	Showhegan	NH and ME		
ME		Turnpike,		
		Rte 201 at Augusta		
Brownville	Millinocket	Rte 11		Frequent run
Operations within		Rte 2		
100 miles of				
Showhegan				

Origin	Destination	Primary Routes	Commodities	Comments
Stillwater	Jay, Hinckley, Millinocket	Rte 2		Would love to use interstate for heavy loads
Portland	Rockland	Coastal road doesn't follow Turnpike, Rte 1	Petroleum	
Portsmouth	Portland	ME Turnpike		
Portland	Brunswick	Rte 1 through Freeport		Would like to use 295/95
Searsport	Waterville	Rtes 3, 201		
Bangor/Brewer	Houlton	Rtes 2, 2A, 9, 178		Up to 10 loads a day
Washington County (Waite)	Aroostook County (Ashland)	Rtes 1, 2, 212, 11	Biomass, Chips	
Sanford	Thomaston	Rte 1		
Lubec	New Hampshire	Rte 9, ME Turnpike	Bark, logs, wood	
Skowhegan	Jackman and into Quebec	Rte 201 into Quebec	chips	
Jefferson	South	Rte 126, to ME Turnpike at Auburn		
Augusta	Rockland	Rte 17		
		Rte 1 and 201 absolutely vital		
Searsport/Bucksport	Houlton	Rtes 3 or 1, 1A, 2	Petroleum	
Searsport/Bucksport	Portland	Rte 3, ME Turnpike	products	
Portland	Brunswick, Wiscasset	Rte 1		
Bath	Brunswick	Rte 1	Refuse and	
Biddeford	Augusta	ME Turnpike	biomass	
Livermore Falls, ME	Massachusetts	Rte 4 to exit 12 of ME Turnpike I-95/NH Turnpike, I-495	Finished lumber products, wood pallets	
Livermore Falls, ME	Millinocket, ME	Rtes 133. 202 to Augusta, I-95, Rte 150, Rte 11	Empty	Not overweight
Millinocket, ME	Livermore Falls, ME	Rte 11, Rte 150. Rte 2, Rte 133	Logs	
Thomaston, ME	Sanford, ME	Rte 1, I-95/ME Turnpike, Rte 111	Cement	
Thomaston, ME	Houlton, ME	Rte 1, 1a, to Bangor, Rte 2/2a		
Portland, ME	Hope, ME	Rte 1 to Augusta, Rte 17	Sand and gravel	
Portland, ME	Rockland & Camden, ME	Rte 1	Petroleum products	
Portland, ME	Augusta, Winslow, Waterville, & Unity	Rte 1, Rte, 201, and Rte 139 to Unity		
Portland, ME	Augusta, ME	ME Turnpike/I-95		Uses everyday

Origin	Destination	Primary Routes	Commodities	Comments
Portland, ME	Fairfield and	Rte I-95, Rte 1, Rte		
	Jackman, ME	201, Rte 139 into		
		Fairfield		
Searsport/Bucksport,	Manchester, ME	Rte 3		Daily, day of
ME				interview had two
				trucks coming in
				on Rte 3
Many routes in New	To highway projects	Rte 3, Rte 16 NH	Asphalt	Hauls on
Hampshire, primary	in the state	Turnpike,	Stone and gravel	secondary routes
Location Hooksett,		Rte 101, Rte202, Rte		that parallel the I-
Others Lebanon,		4, Rte 2, Rtes 114 &		state
Portsmouth, Gorham		103		
Suncook, Hooksett	Nashua	Rte 3	Sand and gravel	Daily run
Suncook, Hooksett	Massachusetts	Rte 3, Rte 101, I-95	Sand and gravel	
Massachusetts	Lebanon, NH	I-95, NH Turnpike,	Petroleum	
		Rte 101, Rte 3	products	
Portland, ME	Lake	I-95 ME/NH	Petroleum	Uses all the routes
	Winnipesaukee area	Turnpike, Rtes 9, 16,	products	around the lake -
		and near lake, Rtes		at least 60 loads
		109, 11, 25		per day
Portland, ME	Concord, NH	I-95/NH and ME		
		Turnpikes, Rte 101,		
		Rte 3		

Study of Impacts Caused by Exempting Currently Non-exempt Mane Interstate Highways from Federal Truck Weight Limits

Appendix C: Pavement Cost Impacts Development Process for the Study Network

Maine Non-Exempt Interstate Derivation of ESAL and Pavement Cost Factors

A methodology was developed to quantify the impact on pavement performance and cost characteristics of the incremental load effect that would result from implementation of the subject weight limit policy condition under study (that is, subject to allowance of 5- and 6-axle trucks weighing up to 100,000 lbs. on the Maine Interstate System).

The effect of an incremental load depends very much upon the base loading to which the increment is applied, since the effects of the resulting total load upon the pavement are not linear. The effects of the total loading also vary by pavement type. However, converting heavy truck volumes to ESALs normalizes the impact that a wide variety of trucks, carrying a similar variety of loads have on the varying base loadings observed on the diversion network.

The normalized, linear nature of using ESALs to describe pavement wear allows for a direct correlation to be established between the number of ESALs borne by a given section of pavement and the monetary costs required to maintain that pavement.

The magnitude and pattern of truck traffic expected from implementation of the study policy scenario will be calculated in a four step process:

- Assigning *base* (existing) truck traffic (vehicle classes 4-13) and ESAL loadings to Maine's road network;
- Assigning study truck traffic expected to divert given implementation of the study policy scenario to the diversion network identified in Technical Memorandum #2;
- Calculating the *increment* in 5- and 6-axle volumes and associated ESAL loadings (positive or negative) between the base and study scenarios; and
- Calculating the cost impacts relating to the incremental ESAL loadings between the base and study scenarios.

The pattern and magnitude of base scenario truck traffic was developed using vehicle classification volumes and average daily ESAL factors (summarized by WIM station and vehicle classification) provided by MDOT and discussed in more detail in Technical Memorandum #1.

Since the original AASHO road tests, the calculation of ESALS has been refined to reflect pavement type, thickness and condition. The equation used in deriving ESAL factors at Maine's WIM stations is taken from the 1986 AASHTO Guide for Design of Pavement Structures. The MDOT pavement management criteria uses a structural pavement number (SN) of 5 and a pavement "terminal serviceability" (Pt) of 2.5:

$$\beta \chi = 0.04 + \frac{0.081 \times (L_x + L_2)^{3.23}}{(SN+1)^{5.19} \times L_2^{3.23}}$$

Where L_x is the load on the whole axle group; L_2 is the axle group code (1 for single, 2 for tandem, 3 for tridem).

The pattern and magnitude of incremental traffic was identified through modeling TRANSEARCH data tonnage data purchased for this study. Additionally, raw WIM data (provided by MDOT) describing class 9 and 10 vehicles was summarized (as presented in Tech Memo 1) so that average daily ESAL factors could be assigned to vehicle volumes.

Derivation of Incremental Traffic and Loading Values

Incremental truck traffic volumes and associated loadings have been calculated by building upon TRANSEARCH commodity flows that were converted to truck counts as follows. (Note: numbers adjusted for class 9&10 filter of WIM data).

Theoretically, with a GVW limit of 80,000 pounds a fully loaded 5-axle TST combination can carry a payload of approximately 50,000 pounds (**T5=25 tons**). With a GVW of 100,000 pounds, a six-axle TST combination can carry a payload of approximately 68,000 pounds (**T6=34 tons**).

Table C-1 shows a representative sample of vehicle count data taken from Weigh-inmotion stations in Maine. Table C-1 indicates the 5-axle vs. 6 axle vehicle type split for WIM stations off the Maine Interstate System (P5=0.20; P6=0.80).

Table C-1:

WIM STATIONS	# Vehicles exceeding exempt weight range	# Vehicles exceeding exempt weight range	Totals
5 axle vehicles (20%)	98	44	142
6 axle vehicles (80%)	309	257	566
Total	408	300	708

Calculation of number of vehicles:

known values from the scenario:

P5, P6 = percentage of 5 axle; 6 axle traffic (as a decimal); P5+P6=1

T5, T6 = payload tons of 5 axle; 6 axle vehicles

RT = Reebie TRANSEARCH total annual tons of freight traffic;

calculated values:

V5, V6 = annual number of 5 axle; 6 axle vehicles

VT = total annual number of 5 axle and 6 axle vehicles; V5+V6=VT

formula:

1: VT = RT / ((P5*T5) + (P6*T6))

2: V5 = P5*VT or = (P5*RT) / ((P5*T5) + (P6*T6))

3: V6 = P6*VT or = (P6*RT) / ((P5*T5) + (P6*T6))

using appropriate scenario values of RT, P5, P6, T5, T6

Commodity tonnages were converted to numbers of 5 and 6 axle trucks through the use of payload conversion factors (i.e. tons to trucks) and ratios of 5 and 6 axle trucks employed by each major industry segment.

Table C-2: Derivation of ESAL factors for Class 9 and 10 (5- and 6-axle) Vehicles Used to Identify the Impact of Incremental Traffic

			AADT			ESALs			million II	bs					•
STA_GRP	STATION	AX_GRP	below exempt	exempt	over exempt	below exempt	exempt	over exempt	below exempt	exempt	over exempt		below exempt	exempt	over exempt
,												H			
	So. ME Interstate	5AX 6AX	3,043 137	442 126	57 111	2,127 55	1,364 356	277 590	153 6	37 11	5 12	_	0.70 0.40	3.08 2.84	4.89 5.33
												H			
2		5AX	1,232		105		614	517	-	16	10		0.70	3.18	
		6AX	77	22	14	27	58	83		2	1	L	0.35	2.62	6.12
	No. ME Interstate	5AX	612 87	39 13	50	580 37	117 32	260 28	-	3 1	5	H	0.95 0.43	3.02 2.54	5.20 5.89
3		5AX	47	3	<u>5</u>	33	12	5		0	0	Н	0.43	3.43	6.32
ŏ		6AX	118	45	61	24	140	358		4	7	_	0.21	3.12	5.87
	Na ME UC Dia	5AX	268	38	25	182	120	127		3	2	Г	0.68	3.17	5.17
	No. ME US Rte.	6AX	45	24	20	13	71	114		2	2		0.29	3.04	5.61
	Eastern ME State	5AX	243	33	6	249	98	33		3	1	ш	1.02	3.01	5.10
		6AX	54	48	30	19	138	162		4	3		0.36	2.88	5.45
4	IVV ME US RIA	5AX	101	10	6	71	32	31	-	1	1	⊢	0.70	3.23	5.58
		6AX 5AX	130 70	68 8	46 2	27 62	197 28	268 11	5 3	6 1	5 0	_	0.21 0.88	2.90 3.60	5.82 5.96
		6AX	106	68	67	21	205	348	-	6	7	ш	0.88	2.99	5.96
		5AX	105	7	5	57	23	34		1	0	_	0.54	3.20	7.04
	Cent ME State	6AX	31	56	33	14	159	207	-	5	4	⊢	0.44	2.83	6.31
1,2,3,4		5AX	5,721	773	255	4,223	2,407	1,295	291	64	24	F		3.11	5.07
1,2,3,4		6AX	783	469	386	238	1,357	2,157	34	43	42	_		2.89	5.59
, , - ,							, , ,								
3,4	_	5AX	834	99	44	652	312	240		8	4			3.17	5.47
3,4	FACTORS	6AX	483	309	257	118	911	1,456	20	29	28	L		2.95	5.67

Step 1: Base Scenario Vehicle / ESAL Traffic Distribution

The Base Scenario was developed by first assigning the 5- and 6-axle commodity tonnages to the analysis network. In the base scenario, all analysis network links representing Maine Interstate system facilities, with the exception of those Interstate facilities representing Turnpike facilities, were disabled so that commodity tonnage data could not be assigned to those links. Thus, the only links that the commodity tonnage data could be assigned to in the base scenario were

- State system facilities; and
- Turnpike facilities.

Applying these prohibitions to the analysis network yielded a base scenario network, representative of current conditions, to which the 5-and 6-axle commodity tonnage data could be assigned.

The 5- and 6-axle commodity tonnage data were then assigned to the base scenario network. Assignment of the data yielded a network representative of the Maine roadway system under base (existing) conditions.

The conversion process previously described was then used to convert assigned tons to numbers of 5- and 6-axle trucks. Then, the ESAL factors described in **Table C-2** were used to convert those volumes of trucks to ESALs.

Step 2: Study Scenario Vehicle / ESAL Traffic Distribution

To develop the study scenario, the links previously *disabled* in the base scenario (that is, the non-Turnpike Interstate facilities) were *enabled*. This yielded an analysis network representative of the study condition – one where all Maine Interstate facilities could legally bear 5- and 6-axle vehicles weighing over 80,000 lbs.

Next, the 5- and 6-axle Reebie tonnage data were assigned to the study network. The assignment of this data yielded a network describing the Maine roadway system under the study condition.

The conversion process previously described was then used to convert assigned tons to numbers of 5- and 6-axle trucks. Then, the ESAL factors described in **Table C-2** were used to convert those volumes of trucks to ESALs.

Step 3: Comparison of Base and Study Scenarios

The diversion network developed for this study is composed of roadway facilities both having heavy truck traffic drawn *from* them, as well as those having heavy truck traffic drawn *to* them. A complete analysis of pavement impacts must account for both instances.

For this analysis, comparisons of base scenario ESAL loadings on the diversion network have been separated into those facilities that *lose* heavy truck traffic given implementation of the study scenario, and those that *gain* heavy truck traffic. In total the analysis examined axle loading for 14,705 road segments.

Table C-3 summarizes the incremental differences in truck volumes and ESAL loadings upon the diversion network as observed between the base and study scenarios.

Table C-3: Summary Impacts to Maine Pavements for the Study Scenario*

Functional Classification	Base Scenario Daily Truck- Mi 5 Axle	Study Scenario Daily Truck- Mi 5 Axle	Change Daily Truck-Mi. - 5 Axle	Base Scenario Daily Truck- Mi 6 Axle	Study Scenario Daily Truck- Mi 6 Axle	Change in Daily Truck- Mi 6 Axle	Total Change in Daily Truck- Mi.
Major/urban collector	2,448.73	1,549.54	-899.19	12,243.26	7,746.75	-4,496.51	-5,395.70
Minor art	3,281.05	2,822.73	-458.32	16,406.07	14,114.27	-2,291.79	-2,750.11
Other princ arterial	10,240.34	8,021.52	-2,218.81	51,200.51	40,104.48	-11,096.03	-13,314.84
Principal Art. Interstate	6,817.53	10,818.84	4,001.31	34,086.25	54,093.57	20,007.32	24,008.63

^{*} For purposes of this analysis, the functional system "Principal Arterial – Other Freeways & Expressways" has been grouped with "Other Principal Arterial."

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Step 4: Estimating Maintenance & Rehabilitation Budget Savings

Given the linear nature of the relationship between the number of ESALs and pavement wear, it is assumed in this analysis that a certain percentage reduction (or gain) in ESAL loadings on facilities making up the diversion network will equate to an equal percentage in resurfacing cost savings (or increases) for that given type of roadway, based on existing MDOT expenditures. As such, it was necessary to develop a measure describing for each functional roadway system, the amount spent for pavement consumption.

Calculating MDOT Resurfacing Costs as a Function of Pavement Use

The prorating methodology used in the HHTN Identification Study and described in Tech Memo 2, was used to assign base scenario truck volume and ESAL estimates (vehicle classes 4-13) to the MDOT TIDE route system. Unlike in the development of the base and study scenarios, volume and ESAL calculations and assignments were made using MDOT's own classification volume counts and ESAL factors.

Maine has provided updated, 2003 ESAL factors (see **Table C-4**) by vehicle class for each WIM station that were assigned to links on the MDOT TIDE route system based on the proximity of route links to a given WIM station.

Table C-4: 2003 Avg. Daily ESAL Factors by Vehicle Class & WIM Station

Location	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13
So. ME Interstate -										
2002	0.5094	0.2874	1.6519	3.8599	0.5290	1.3105	3.6117	1.0500	1.0500	3.9375
NW ME US Rte										
2002	0.5409	0.4795	1.0349	4.4685	0.6546	1.7882	3.9033	1.0500	1.0500	4.0688
Cent. ME Interstate -										
2002	0.7146	0.3494	0.9182	4.0458	0.8280	1.4539	1.6308	2.0355	1.1753	3.9375
Cent. ME Turnpike -										
2002	0.7476	0.3064	0.9051	5.3129	0.7970	1.2982	3.8145	1.5615	1.0500	5.5475
No. ME Interstate -										
2002	0.8556	0.2001	0.6084	2.8068	0.6009	1.2795	0.7747	1.3885	1.0500	3.9375
So. ME Interstate -										
2002	0.6106	0.2711	0.8361	4.6133	0.6893	1.5029	3.6301	1.3134	1.0500	4.3519
No. ME State - 2002	1.0269	0.5630	1.3988	4.5621	2.7619	1.5646	2.9148	1.0500	1.0500	3.9375
No. ME US Rte										
2002	0.7558	0.2931	1.2238	3.6120	0.6679	2.0435	2.5313	1.0851	1.0500	3.9375
Cent. ME State -										
2002	0.5603	0.3836	1.0935	4.2200	1.0203	1.0433	3.6933	1.0500	1.0500	3.9375
Eastern ME State -										
2002	0.6137	0.2914	0.6041	5.6847	0.6706	1.7334	2.6056	1.0500	1.0500	7.1250

Using the previously-described distance-weighted prorate procedure, classified volumes and associated ESAL values were assigned to the MDOT TIDE route system. Next, values for vehicle-miles and ESAL-miles were summarized for each functional system.

Summarizing these values by functional system is a critical step in the determination of cost impacts from implementation of the study scenario, as the MDOT resurfacing program budget is partitioned by functional system.

For the analysis MDOT provided historical details on its resurfacing budget (**Table C-5**).

Table C-5: MDOT Resurfacing Program Budget

Maine Biennial Pavement Maintenance Costs by

Functional Highway Class

	Functional Highway C	1	
Budget		_	% of
Year	Functional Class	Programmed	Biennial
	Interstate	\$ 15,344,000	24%
366	Major Collector	\$ 14,545,380	22%
8-1	Minor Arterial	\$ 16,832,350	26%
1998-1999	Other Principal Arterial	\$ 18,478,700	28%
,	Total 1998-1999	\$ 65,200,430	
	Interstate	\$ 9,558,000	13%
2000-2001	Major Collector	\$ 19,090,100	25%
0-2	Minor Arterial	\$ 24,966,000	33%
500	Other Principal Arterial	\$ 22,572,000	30%
	Total 2000-2001	\$ 76,186,100	
	Interstate	\$ 9,661,000	11%
33	Major Collector	\$ 31,442,996	35%
.20(Minor Arterial	\$ 29,159,000	32%
2002-2003	Minor Collector	\$ 211,000	0%
20	Other Principal Arterial	\$ 20,549,000	23%
	Total 2002-2003	\$ 91,022,996	
	Interstate	\$ 11,356,000	11%
05	Major Collector	\$ 31,649,670	30%
2004-2005	Minor Arterial	\$ 33,707,880	32%
9	Other Freeways/Expressways	\$ 1,962,000	2%
70	Other Principal Arterial	\$ 25,929,400	25%
	Total 2004-2005	\$ 104,604,950	

The amounts programmed in the MDOT resurfacing budget for each functional system are representative of the *entire* mileage for that functional system. However, this analysis is only accounting for the cost impacts on those facilities making up the diversion network identified for this study. The purpose here was to develop a *cost per ESAL-mile* to normalize the programmed amount for each functional system by the amount of truck traffic traveled on that system. The cost per ESAL-mile metric was then applied to incremental ESAL loadings (positive or negative) to determine cost impacts for the study scenario.

The distance-weighted prorate procedure used to assign ESAL values to the MDOT TIDE route system for this analysis does not yield a full assignment of values for all facilities on each MDOT functional system. In other words, there is a given portion for each functional system for which base ESAL values were unknown. Therefore, observed

ESAL values were expanded from the portion of the network for which values were known, to those segments were ESAL values were unknown. To accomplish this, for each functional system, the sum of known ESAL-miles was divided by the sum of the length of the known segments. This value was then multiplied by the sum of the length of the entire functional system to arrive at a "grown" number of ESAL-miles.

Estimated ESAL values were derived by calculating the ratio of mileage where ESAL values were known to that mileage for which ESAL values were unknown. An "expansion factor" was then calculated as follows:

Expansion Factor =
$$1 - [Unknown Ratio / 2]$$

The total daily ESAL-miles for each functional system (summarized from the distance-weighted prorate procedure) were applied to the expansion factor, yielding an expanded ESAL-mile value.

Study of Impacts Caused by Exempting Currently Non-exempt Mane Interstate Highways from Federal Truck Weight Limits

Appendix D: Bridge Inventory and Cost Detail Tables

Exhibit D-1 The Maine Non-Exempt Interstate Bridge Inventory

			1
PRIMARY ROUTE	BRIDGE NAME	FEATURE ON	TOWN NAME
INT 295 NB	CNR CROSSING	US1 & I295	Portland
ST RTE 0022	CONGRESS STREET	CONGRESS ST	Portland
INT 95 NB	FORE RIVER	MAINE TURNPIKE	Portland
TURNPIKE NB	MEADER BROOK	MTPA	Falmouth
ST RTE 0115	GILBERT SMALL	115	Windham
TURNPIKE NB	COLLIER BROOK	MTPK	Gray
TURNPIKE NB	FOREST LAKE BROOK	MAINE TURNPIKE	Gray
TURNPIKE NB	PLEASANT RIVER	MTPK	Gray
ST RTE 0026	MIDDLE RANGE	26	Poland
ST RTE 0122	RTE 122/OLD HOTEL RD	POLAND SPRING RD	Auburn
TURNPIKE NB	FOSTER BROOK	MTPK	New Gloucester
US 1	RT #1 UNDERPASS	MCRR	Brunswick
RD INV 10186 23	PAUL DAVIS MEMORIAL	HIGH ST	Bath
US 1	WEST APPROACH	SMO RAILROAD	Bath
ST RTE 0142	CORBETT	142	Salem Twp
US 2	WILD RIVER	ROUTE 2	Gilead
US 2	PEABODY SCHOOL	ROUTE 2	Gilead
ST RTE 0035	CRYSTAL LAKE OUTLET	#117	Harrison
ST RTE 0035	HORRS	ROUTE 35	Waterford
US 2	PROSPECT AVE	ROUTE 2	Rumford
ST RTE 0108	MORSE	ROUTE 108	Rumford
ST RTE 0121	CNRR	CNRR	Mechanic Falls
ST RTE 0011	MECHANIC FALLS	ROUTES 11 & 121	Mechanic Falls
ST RTE 0026	SAW MILL	ROUTE 26	Paris
ST RTE 0108	FROST	#108	Rumford
ST RTE 0142	MILL POND	RTE 142 SA 1	Salem Twp
TURNPIKE NB	CITY FARM CULVERT	MTPK	Lewiston
US 202	JAMES B. LONGLEY MEM	MAIN ST US 202	Auburn
ST RTE 0011	PARSONS MILL	MINOT AVE RTE 11	Auburn
ST RTE 0136	IRON	S MAIN ST RTE 136	Auburn
ST RTE 0136	MAIN ST. BRIDGE	136	Auburn
ST RTE 0196S	LOCUST ST BRIDGE	LOCUST STREET	Lewiston
US 202	MAIN STREET	RTE 11-100-US202	Lewiston
US 202	JEPSON BROOK	202;RMPS A;D;MCRR	Lewiston
US 202	FAIRGROUNDS CROSSING	MAINE CENTRAL RR	Lewiston
ST RTE 0196	DILL	RTE 196 & MTA RAMP	Lewiston
TURNPIKE NB	NO NAME BROOK CULVERT	MTPK	Lewiston
TURNPIKE NB	NEWOEGIN CULVERT	MTPK	Sabattus
ST RTE 0126	SABATTUS RIVER	ROUTE 126	Sabattus
ST RTE 0004	BRETTUNS POND	#4	Livermore
ST RTE 0219	FOSS	#219	Leeds
ST RTE 0197	RTE1 197	RTE 197	Litchfield
TURNPIKE NB	POTTERS BROOK	MTPK	Litchfield
ST RTE 0197	PLEASANT POND	197	Richmond
ST RTE 0197	BARKER BROOK	197	Richmond
INT 95 North	VAUGHN STREAM	MAINE TURNPIKE	Hallowell
ST RTE 0009	NEW MILLS	RTE 9 & 126	Gardiner
US 201	BRIDGE STREET	BRUNSWICK AVE	Gardiner
US 201	WATER STREET	STATE OF MAINE RR	Hallowell

ST RTE 0041	GRIST MILL	RTE 41	Mt Vernon
ST RTE 0041	VILLAGE	41	Vienna
ST RTE 0027	BELGRADE LAKES	ROUTE 27	Belgrade
RD INV 10290 11	WATER ST BR. UNDERPASS	MAINE CENTRAL RR	Augusta
US 201	AUGUSTA MEM. BRIDGE	100;201;202	Augusta
RD INV 10051 11	FATHER JOHN J CURRAN	SH 30 (CONY STREET)	Augusta
US 2	HARDY BROOK	US 2-4	Farmington
ST RTE 0004	MILL POND	#4-27	Farmington
ST RTE 0004	PROCTOR BROOK	#16	New Portland
US 2	MAIN STREET	ROUTES 2.8&US201	Norridgewock
US 201	COLLEGE AVE CROSSING	MCRR	Waterville
US 201	WYMAN CROSSING	MAINE CENTRAL	Fairfield
03 201	UNDERPASS	RAILROAD	ranneiu
US 2	MARGARET CHASE SMITH S	US2 & US201	Skowhegan
US 2	MARGARET CHASE SMITH N	US2 & US201	Skowhegan
US 201	WOOLEN MILL	201	Skowhegan
US 201	MAIN ST BR.	MAINE CENTRAL RR	Fairfield
ST RTE 0011	CAIN	ROUTES 11 & 100	Clinton
ST RTE 0150	PARKMAN RD / FERGUSON STR	ROUTE 150 (MAIN STREET)	Cambridge
US 2	MAIN STREET	US2-100	Newport
ST RTE 0007	CORINNA	#7-11-43	Corinna
ST RTE 0006	GUILFORD MEMORIAL	6-15-16-150	Guilford
US 1	MAIN STREET	US 1	Camden
US 1	LINCOLNVILLE BEACH	US 1	Lincolnville
US 1	STOCKTON SPRINGS UNDRP	CHURCH ST	Stockton Springs
US 202	WARD	9-202	Newburgh
US 1A	TIN	MAINE CENTRAL RR	Bangor
INT 395 EB	MCRR/I-395	MCRR	Brewer
US 2	STATE ST.	US 2	Bangor
US 1A	JOSHUA CHAMBERLAIN	US 1A	Bangor
ST RTE 0001C	PENOBSCOT BRIDGE	ROUTE 15	Bangor
US 2	RED	US 2	Bangor
US 1	MAIN STREET	US 1	Ellsworth
US 2	SMITH BROOK	US #2	Lincoln
US 2A	JORDAN MILL	US 2 A	Macwahoc Plt
US 2A	MILL	US 2 A	Haynesville
US 2A	HAYNESVILLE	US 2A	Haynesville
US 1	STONEY BROOK	US 1	Baileyville
US 1	B&ARR/US RTE 1 RR#208-96	BANGOR & AROOSTOOK RR	Presque Isle
US 1	CLARK	RTE 143	Presque Isle
RD INV 00466 25	FARNHAM BROOK	SA 1	Pittsfield

Exhibit D-2: Modeled Truck Traffic Impacts for the Study Scenario						
	Base	Base	Study	Study	Change	Change
	5AX	6AX	5AX	6AX	in 5AX	in 6AX
BRIDGE NAME	TRUCKS	TRUCKS	TRUCKS	TRUCKS	TRUCKS	TRUCKS
CNR CROSSING	0	0	11	56	11	56
CONGRESS STREET	3	14	2	11	-1	-3
FORE RIVER	21	106	7	37	-14	-69
MEADER BROOK	21	106	0	0	-21	-106
GILBERT SMALL	5	24	2	10	-3	-14
COLLIER BROOK	18	92	0	0	-18	-92
FOREST LAKE BROOK	21	106	0	0	-21	-106
PLEASANT RIVER	21	106	0	0	-21	-106
MIDDLE RANGE	12	62	0	0	-12	-62
RTE 122/OLD HOTEL RD	0	0	0	0	0	0
FOSTER BROOK	18	92	0	0	-18	-92
RT #1 UNDERPASS	3	13	3	14	0	0
PAUL DAVIS MEMORIAL	11	57	3	14	-9	-44
WEST APPROACH	11	53	4	20	-7	-33
CORBETT	3		2	_	0	
WILD RIVER		13		12		1.0
PEABODY SCHOOL	14	72	16	82	2	10
CRYSTAL LAKE OUTLET	14	72	16	82	2	10
HORRS	0	0	12	62	12	62
	0	0	12	62	12	62
PROSPECT AVE	23	117	25	127	2	10
MORSE	23	117	25	127	2	10
CNRR	0	1	0	1	0	0
MECHANIC FALLS	0	1	0	1	0	0
SAW MILL	12	62	0	1	-12	-62
FROST	15	73	16	81	2	8
MILL POND	3	13	2	12	0	0
CITY FARM CULVERT	9	43	0	0	-9	-43
JAMES B. LONGLEY MEM	16	82	16	82	0	0
PARSONS MILL	0	1	0	1	0	0
IRON	0	0	0	0	0	0
MAIN ST. BRIDGE	0	0	0	0	0	0
LOCUST ST BRIDGE	2	10	1	3	-1	-6
MAIN STREET	16	82	16	82	0	0
JEPSON BROOK	15	73	15	77	1	4
FAIRGROUNDS CROSSING	15	73	15	77	1	4
DILL	2	10	1	3	-1	-6
NO NAME BROOK CULVERT	9	47	0	0	-9	-47
NEWOEGIN CULVERT	9	47	0	0	- 9	-47
SABATTUS RIVER	0	0	0	2	0	2
BRETTUNS POND	10	51	5	27	-5	-24
FOSS	9	46	11	55	2	9
RTE1 197	0	0	0	2	0	2
POTTERS BROOK	8	42	0	0	-8	-42
PLEASANT POND	2	10	0	2	-2	-8
BARKER BROOK	1	6	16	79	15	73
VAUGHN STREAM	0	0	14	71	14	73
NEW MILLS	15	76	14	5	-14	-71
BRIDGE STREET	21	104	1	7	-14	-71 -97
WATER STREET	16	77	1	5	-19	-72
WITTER STREET	16	11	1	5	-14	- 12

GRIST MILL	1	3	0	0	-1	-3
VILLAGE	1	3	0	0	-1	-3
BELGRADE LAKES	2	8	7	35	5	27
WATER ST BR. UNDERPASS	0	0	1	3	1	3
AUGUSTA MEM. BRIDGE	39	194	13	64	-26	-130
FATHER JOHN J CURRAN	0	0	1	3	1	3
HARDY BROOK	19	96	15	74	-4	-22
MILL POND	11	55	11	55	0	0
PROCTOR BROOK	3	13	2	12	0	0
MAIN STREET	5	23	5	25	0	2
COLLEGE AVE CROSSING	7	36	0	0	-7	-36
WYMAN CROSSING UNDERPASS	7	36	0	0	-7	-36
MARGARET CHASE SMITH S	11	53	4	21	-6	-32
MARGARET CHASE SMITH N	11	53	4	21	-6	-32
WOOLEN MILL	6	30	4	19	-2	-11
MAIN ST BR.	6	30	0	0	-6	-30
CAIN	5	25	0	0	-5	-25
PARKMAN ST/ FERGUSON	4	20	0	0	-4	-20
MAIN STREET	9	45	0	0	- 9	-45
CORINNA	1	4	0	0	-1	-4
GUILFORD MEMORIAL	1	7	0	0	-1	-7
MAIN STREET	8	39	7	33	-1	-6
LINCOLNVILLE BEACH	8	39	7	33	-1	-6
STOCKTON SPRINGS UNDRP	22	112	8	42	-14	-70
WARD	7	36	0	2	-7	-34
TIN	0	0	0	0	0	0
MCRR/I-395	0	0	16	79	16	79
STATE ST.	4	22	0	0	-4	-22
JOSHUA CHAMBERLAIN	1	4	0	0	-1	-4
PENOBSCOT BRIDGE	5	27	3	16	-2	-11
RED	7	33	0	0	-7	-33
MAIN STREET	13	66	0	0	-13	-66
SMITH BROOK	8	42	0	0	-8	-42
JORDAN MILL	7	34	0	0	-7	-34
MILL	7	34	0	0	-7	-34
HAYNESVILLE	7	34	0	0	-7	-34
STONEY BROOK	10	50	10	49	0	-1
B&ARR/US RTE 1 RR#208-96	14	71	12	60	-2	-10
CLARK	14	71	12	60	-2	-10
FARNHAM BROOK	0	0	2	11	2	11

Exhibit C-3: Maintenance Cost Derivations by Bridge

Exhibit C-3: Maintenance Cost Derivations by Bridge							
	m.1] m]	Q	D1				
DDIDGE WINE	Total Truck	Cost	Deck				
BRIDGE NAME CNR CROSSING	Volume Change	Factor	Area (SF)				
CONGRESS STREET	67	0.67	16912				
	-4	0	8600				
FORE RIVER	-83	-1	0				
MEADER BROOK	-128	-1	0				
GILBERT SMALL	-17	-0.33	0				
COLLIER BROOK	-110	-1	1400				
FOREST LAKE BROOK	-128	-1	0				
PLEASANT RIVER	-128	-1	1400				
MIDDLE RANGE	-74	-0.67	527				
RTE 122/OLD HOTEL RD	0	0	9910				
FOSTER BROOK	-110	-1	0				
RT #1 UNDERPASS	0	0	2960				
PAUL DAVIS MEMORIAL	-52	-0.67	5289				
WEST APPROACH	-40	-0.67	44178				
CORBETT	0	0	0				
WILD RIVER	12	0.33	6912				
PEABODY SCHOOL	12	0.33	714				
CRYSTAL LAKE OUTLET	74	0.67	1456				
HORRS	74	0.67	1885				
PROSPECT AVE	12	0.33	1586				
MORSE	12	0.33	7125				
CNRR	0	0	650				
MECHANIC FALLS	0	0	7938				
SAW MILL	-74	-0.67	0				
FROST	10	0.33	0				
MILL POND	0	0	2643				
CITY FARM CULVERT	-51	-0.67	0				
JAMES B. LONGLEY MEM	0	0	46980				
PARSONS MILL	0	0	1697				
IRON	0	0	6270				
MAIN ST. BRIDGE	0	0	1985				
LOCUST ST BRIDGE	-8	-0.33	3409				
MAIN STREET	0	0	5669				
JEPSON BROOK	5	0	0				
FAIRGROUNDS CROSSING	5	0	4451				
DILL	-8	-0.33	0				
NO NAME BROOK CULVERT	-57	-0.67	0				
NEWOEGIN CULVERT	-57	-0.67	0				
SABATTUS RIVER	2	0	2139				
BRETTUNS POND	-29	-0.33	0				
FOSS	11	0.33	4600				
RTE1 197	2	0	6968				
POTTERS BROOK	-51	-0.67	0				
PLEASANT POND	-10	-0.33	0				
BARKER BROOK	87	1	0				
VAUGHN STREAM	85	1	0				
NEW MILLS	-85	-1	3150				
BRIDGE STREET	-116	-1	10758				
WATER STREET	-87	-1	1860				

GRIST MILL	-3	0	1140
VILLAGE	-3	0	630
BELGRADE LAKES	32	0.33	5285
WATER ST BR. UNDERPASS	4	0	3944
AUGUSTA MEM. BRIDGE	-156	-1	94410
FATHER JOHN J CURRAN	4	0	22204
HARDY BROOK	-27	-0.33	0
MILL POND	0	0	812
PROCTOR BROOK	0	0	0
MAIN STREET	3	0	1700
COLLEGE AVE CROSSING	-44	-0.67	3222
WYMAN CROSSING UNDERPASS	-44	-0.67	5549
MARGARET CHASE SMITH S	-38	-0.67	8991
MARGARET CHASE SMITH N	-38	-0.67	7709
WOOLEN MILL	-13	-0.33	1071
MAIN ST BR.	-36	-0.67	2640
CAIN	-30	-0.33	1490
PARKMAN ST/ FERGUSON	-24	-0.33	699
MAIN STREET	-54	-0.67	8138
CORINNA	-4	0	3573
GUILFORD MEMORIAL	-8	-0.33	7000
MAIN STREET	-8	-0.33	2415
LINCOLNVILLE BEACH	-8	-0.33	518
STOCKTON SPRINGS UNDRP	-84	-1	4381
WARD	-41	-0.67	0
TIN	0	0	1162
MCRR/I-395	95	1	3158
STATE ST.	-26	-0.33	6965
JOSHUA CHAMBERLAIN	-5	-0.33	61520
PENOBSCOT BRIDGE	-13	-0.33	56600
RED	-40	-0.67	945
MAIN STREET	-79	-1	7695
SMITH BROOK	-51	-0.67	0
JORDAN MILL	-41	-0.67	1964
MILL	-41	-0.67	0
HAYNESVILLE	-41	-0.67	9372
STONEY BROOK	-1	0	0
B&ARR/US RTE 1 RR#208-96	-12	-0.33	1493
CLARK	-12	-0.33	0
FARNHAM BROOK	13	0.33	0

Study of Impacts Caused by Exempting Currently Non-exempt Mane Interstate Highways from Federal Truck Weight Limits

Appendix E: Public Comments

Public Comments to the Draft Report

During February 2004, MDOT placed the draft report and executive summary on its web site. MDOT issued a press release announcing the availability of the draft study report, and to provide notice that a public meeting to hear comments on the draft would be held on March 5th.

Public Meeting Response

Twenty-two people representing Maine towns and cities, industry and the general public signed in at the public meeting held at MDOT headquarters in Augusta on March 5th. After a 45 minute presentation summarizing the study results, attendees were invited to comment

Maine Public Hearing Questions / Comments Summary

Mr. Frank Higgins, City Engineer – Brewer

Mr. Higgins stated that he believes there has been a dramatic increase in truck traffic over the past two decades, and questioned whether the use of historical pavement cost data fully captures the increase in pavement wear on the secondary road system. Believes that actual road maintenance costs maybe higher than historical expenditures and, in that regard the study may understate the cost impacts to the secondary road system.

Response: The key point from the study is the allocation across road systems. So even if the budget were larger, the direction of the impacts should remain the same.

Mr. Bill Bridgeo, City Manager in Augusta

Mr. Bridgeo questioned if anyone called asked for the opinions of officials in Augusta? He indicated that Augusta was hoping to see environmental impacts from idling trucks in cities as part of the study. Have a high number of truck accidents and would like the opportunity to comments.

Response: The study took a cursory look at emissions using federal emissions numbers. The model does not predict fewer miles overall, so without a more sophisticated methodology it was beyond the scope of the study.

Mr. Mark Woodbury - P.R. Russell, Inc.

Read a letter from Mr. Russell who was unable to attend the hearing. The letter states its support for allowing trucks up to 100,000 lbs. on Interstate highways in Maine. P.R. Russell manufactures landscaping mulch in a yard adjacent to 295. Each day up to 60-

TST trucks from this operation travel through Topson, Brunswick and Freeport. An equal amount of raw material travels into the yard. These towns are tourist attractions with narrow streets and cross-walks. These folks are not looking for big trucks, and these trucks shouldn't be in these towns on these roads.

Question: When will the Collins/Snowe bill be voted on?

Response: Will be considered as part of reauthorization.

Ms. Peggy Daigle - Town Manager, Houlton

Didn't recall being interviewed. \$2.1 Billion dollars of trade across the Canadian border crossing. Just finished a very comprehensive economic development study with lots of good in formation about trade and truck traffic. Would offer that materials as additional input to the study.

Ms. Sue Gilbert – Homeowner on U.S. Highway 3

Mrs. Gilbert said she is a homeowner and parent of a school age child who lives along U.S. Highway 3. Ms. Gilbert said she supports the study and her primary concern safety and the interaction of buses and large trucks on secondary roads. Ms. Gilbert said she would like to see the study expanded to use additional crash data. Why is the study being done so late and if there is a bill currently in Congress, what can be done to ensure its passage? She recounted a story, while waiting for her child to board the bus, a truck came over the hill. The truck attempted to stop but couldn't and had to swerve and go around the bus. During the next several hours she counted 32 trucks go by her house.

Response: Tim Bolton responded as to the schedule of pending bills and opportunities for input to the process. Mr. Berndt also pointed that in each of the issues examined by the study infrastructure and safety took conservative approaches to the analysis, but used the best available data.

Mr. Michael Celli – Mayor City of Brewer

Suggested that folks interested seeing this past should write and/or call key Congressman. In addition he felt it was a good report, and appreciated the desire not to overstate any of the issues, but believed that additional issues could be expanded on. Safety. Many old towns in Maine are working to revitalize their downtown and beach or river front areas. Therefore tourism is a big issue and tourist don't want to deal with these trucks. Building a by-pass but

Mr. Celli stated that he had not heard one reason not to make this change. He stated that it was too bad the decision had to be made in Washington. He encouraged others attending the public meeting to get citizens to write Congressmen with their safety concerns about not allowing heavy trucks on the Interstate system in Maine.

Mr. Larry Armanson-Superior Carriers Inc.

Mr. Armanson indicated that his company hauls bulk liquids on tri-axle trailers. He said that for every 4 trips made using an 80,000 pound vehicle, the same amount of load could be carried in 3 trips with a six-axle 100,000 pound vehicle.

Mr. Armanson stated that their drivers are forced to use Route 7 and Route 11, even thought the Interstate is just a much straighter and flatter road. Their drivers were like to be on better safer freeway standard roads.

Jeanie Voller Freeport, Traffic and Parking Committee

Ms. Voller said she became active in Freeport due to the very issue of big trucks on secondary roads through her community and has been working on heavy truck issue since the early 1990's. She said Freeport enjoys a strong tourism business - 80,000 people each day, and these people as others have noted do not expect to see these large trucks in downtown areas. This issue is both a safety and economics concern to her community.

Lionel Cayer, City Engineer Augusta

Mr. Cayer commented about the impact of secondary roads in Augusta. He said the study did a good job trying to quantify impacts, but the study fails to capture the fact that secondary roads over time have deteriorated, and maintenance has not kept up. As an example, the Maine DOT did a major rehabilitation of Western Avenue four years ago. In the four years since that work was completed the road has rutted very badly.

The value of taking this truck stream off the secondary road system will provide more capacity in urban areas like Augusta. Having to make these trucks stop and start at controlled intersections slows down the whole traffic stream.

Someone else commented that federal data shows that trucks are more likely run red lights than other vehicles which adds to the concern of having trucks on the secondary road system.

Rob Kenerson, Director of BACTS – MPO: Bangor Area Comprehensive Transportation System.

Mr. Kenerson explained that BACTS represents 10 communities, and that he was also speaking on behalf of two other community organizations that were unable to have representatives attend the meeting. Each of the three organizations recently passed resolutions unanimously endorsing heavier trucks on the Interstate. He said it was both a safety and economic issue for these communities.

Many of the secondary roads were not designed to handle these heavy trucks. Environmental issues are also an important to citizens of Maine. Overall, strongly support the recommendations of the study.

Dale Hannington, Maine Motor Transport Association (MTA).

Mr. Hannington stated that safety one of the MTA's primary concerns. He said the MTA has been working for many years to get this provision passed. He strongly encourage others to write, email and fax members of Congress. He said he felt the study did an excellent job of spelling out the issues and impacts and provide good arguments for an exemption bill passed.

Written / Email Comments from the Public

In addition to the comments about the study received during the public meeting, MDOT also received 39 written comments by mail or email. Of these comments, 24 opposed increasing weight limits on the Interstate system in Maine, 14 favored increasing the weight limit on Maine Interstates, and one expressed no opinion about the weight policy, but posed several questions about the study conclusions. Following is a summary of the comments submitted, many of these comments are provide verbatim.

The weight of trucks now on the road causes extensive visable damage even on Maine Turnpike (I-95). A particularly good example is the hill approaching Burger King just prior to exit 11 in Gray. Although the road surface is relatively new, deep ruts are molded into the road surface as a result of heavy vehicles chugging up that incline. How is increasing the weight limit going to prevent lesser damage? Be beneficial to the State as it struggles to meet tight budgets?

Marcel Bilodeau Bilodeau Consulting 64 Jennifer Dr. Auburn, Me. 04210

I am writing in support of the "Maine Interstate Truck Weight Exemption". As a life-long citizen of Freeport, Me the impact of the large trailer trucks rolling down our main street is enormous. With the millions of retail customers flocking to our town, the potential for a serious accident/incident exists every hour in our most developed area in town by mandating these oversized and hazardous material carrying vehicles to travel through our downtown.

On December 14, 2003 (a Sunday) I was volunteering for an event that was sponsored by a local agency in Freeport and was stationed in the center of the town directly across from L.L.Bean's main store. In 2 hours time nine (9) large tractor trailer/tanker type vehicles came through the center of town, most having to stop at the crosswalk area in front of L.L.Bean to allow pedestrians to cross the street. With the added problems of children, elderly and the numerous Tour buses that load and unload it is surprising we have not yet had a serious accident.

As a town we have been working on this Exemption request for a number of years, to see it get this close is promising. As is said....."it doesn't take a rocket scientist" to figure out the positive impact this change will make to local infrastructure, personal safety, and day to day living in local towns.

Charlotte H. Bishop 145 Maquoit Drive

I will not be able to attend your hearing this Friday, I assume this Friday as the KJ says Friday and does not give a date.

Any way these hearings are a farce and the public is gullible. There is one easy way to get the trucks on I-95 and that is to reduce the weight limits to agree with the Federal Government limits. Sounds simple and it is except, the Governor, the head of the DOT and the Legislature are all in the pocket of the Maine Trucking Industry and their lobbyists. This hearing is just eyewash and nothing will come of it except someone will write a report, pass it to the trucking outfit to see if it meets with their ok and then file it. The present load limit is not being enforced and won't be as the truckers threatened to go on strike a couple of years ago if they were weighed and overweight as the logging trucks are all the time.

Russell F. Brown 1096 Riverside Drive Vassalboro, ME 04989

To increase truck weight limits on any Maine roads - Interstate 95 included - seems highly unwise. Instead, common sense suggests we should scale back to 80,000 pound limits on all Maine highways, and secondary roads as well. This will save the state and municipalities millions of dollars in road maintenance, and quite possibly save lives as well. Forty tons hurtling down Route 1 creates than enough wear and tear, and danger, to allow on the road.

Speaking as an elected municipal official, and former two-term member of RTAC-5, I am aware of the issues here. It seems to me at least some members of the Maine Congressional Delegation are being bulldozed by the trucking industry lobbyists, and perhaps they have too strong a voice with MDOT. I hope you will hear our voices, too. Don't raise weight limits. I appreciate you including these thoughts in the record of official comment.

Sincerely,

Steve Cartwright Selectman Town of Waldoboro To: tim.bolton@maine.gov

Subject: Truck Wgt Limits Study-Public Comment

I read the recently released Executive Summary of this report and wish to register my strong differences with many of the conclusions reached by the firm that did this work for MDOT.

Many of the conclusions are based on erronius assumptions that seem to have been made in order to produce a desired result that has been a goal of the last two administrations in Augusta and favored by most if not all of our congressional delegation.

One of these assumptions is that if overweight trucks were allowed on I-95, overall traffic of such trucks would decrease on state hwys. Extending the weight limit on ME hwys to the Interstate in no way forces trucks to use the interstate. In some case they would divert back to the interstate. But I believe increasing wgt limits on I-95 would actually attract more than the present amt of overweight trucks to ME based on the fact that our system would be more open to scuh trucks, and this increase in overweight traffic would actually increase overwgt trucks travelling on state hwys as well as add these trucks to the interstate system. Many of such additional trucks using the interstate would at some point need to sue the state hwy system to reach their destinations, as they now do, and if anything, this would increase the number of overwgt trucks using the state hwy system.

If this is the case, the projected financial savings and safety savings would be reversed, ie the cost to Maine in hwy reconstruction and accidents would actually increase, and the cost to the federal system would also increase due to ME's exemption. Much of this increase would be borne by other states, many of which do not even allow overwgt trucks on their state or federal hwys. Yet we will ask them to pay more to repair ME's federgal hwys if we allow overwgt trucks on them.

The report shows the aggravated rate and severity of large truck accidents on state hwys compared to interstates when both are used by large trucks. This accident rate will not go down if more overwgt trucks travel on state hwys due to more overwgt truck traffic overall in ME. In addition we will be adding the increased danger of overwgt trucks to our high speed interstate system. Clearly a recipe for more cost and danger to ME citizens.

Interstate were not built to hold 100,000 lb trucks any more than our state hwys were. The federal gov't does not allow 100,000lb trucks on the federal hwy system.

The ongoing assumption that these trucks will leave the state hwy system is one of the worst misconceptions of the push behind this exemption. If this were to become true why won't the trucking industry commit to lower or no use of state hwys as part of the demonstration? Can we not legislate lower wgt limits on state hwys if we open the interstate to those wgts? Why must we accept both? The truth is we will continue to have problems in the state hwys and bridges, and in addition we will open the Interstate to the same danger and cost we bear on our state hwys.

Local government officials are being mislead by the trucking industry and this study to believe their risks will be less under the proposed exemption. There is no basis at all to claim there will be less of these trucks on state hwys after passage of such an exemption.

If we truely want to reduce the cost and risk of these trucks on state hwys, the simplest and surest solution is to reduce the wgt limit to 80,000lb on state hwys as the federal gov't suggests and enforces on its routes. We don't need a study to tell us what will happen if we reduce wgts on state roads. There is no question there will be less accidents and road wear by overwgt trucks.

Why was this not included as a study option to reduce the problems of overwgt trucks on ME state hwys?

I believe the study as written is misleading and incomplete. I ask MDOT to re-assign this problem to be studied using a second option of reducing wgt limits on ALL ME hwys, both federal and state.

Paul Chartrand, Rockland, ME (former legislator and Trans Comm member)

Tim-

Man, is THIS overdue. We've been having monster trucks shake our house @ 85 Western for years - this great old house has been in my wife's family for almost 90 years - has been fine until the past few. We've complained a half dozen times or so- finally they resurfaced the road in July, which helped some. This is one of the supidest laws I've heard in a long time- either make truck loads SMALLER or make 'em go on the Interstate, where evryone can share the costs of these whales beating the hell out of the roads. Seems like just another element of the greed taking over our society, where EVERYTHING is for sale, including the govt (nationally anyway), health care, etc.

Keep them the hell off of secondary roads!

Ted Elliott

Dear Mr. Bolton,

Unfortunately, I have just found out today that you are accepting public comment regarding the Maine Interstate Truck Weight Exemption Study. Please accept my following comments. I apologize for their being somewhat rushed. I know that many other of my neighbors would like the chance to comment. If you could extend your deadline, that would be helpful.

I live at 195 Main Street in Freeport which is also Route 1. Every day, six axle tanker and cement trucks roar past my house. Five axle scrap metal trucks and other > 40 ton trucks drive by at all times of day and night. Aside from the noise and vibration, having these huge trucks drive through what is a largely residential neighborhood is clearly unsafe. Ironically, the interstate highway is only 1/2 mile away, yet these trucks cannot use it. Instead they must barrel along a stretch of Route 1 with lights, numerous crosswalks, and a constant pedestrian presence. The situation is without doubt a disaster waiting to happen.

I and my neighbors definitely support moving these trucks off local roads and on to the interstates. It is without question the sensible solution to the safety problems. The MDOT would be doing the residents of Freeport and many other communities a huge service by extending the weight exemption to all of Maine's interstates.

Thank you for your consideration of my comments.

You can contact me at (207) 865-1232

Charles Fischman 195 Main Street, Freeport, ME, 04032

Dear Mr. Bolton.

As someone who travels the interstate frequently, I am writing to request that weight limits on Maine roads and highways NOT be increased; in fact, if any changes are made, weight limits should be decreased.

At a time when we our dependence on gasoline is increasingly becoming clear as a threat to national security threat, since we depend on politically unstable regions of the world for oil supplies, the Maine Dept of Transportation should be acting in every way to encourage Mainers to get out of their SUV's and into gasoline efficient vehicles. "Personal safety" is already one of the reasons people give for purchasing heavy SUV's and other gas guzzling vehicles for personal use. Increasing weight limits for trucks is going to further discourage Mainers from getting into lighter weight, fuel efficient vehicles.

"As Maine go, so goes the Nation." Just because the trucking industry has gotten to the federal Dept. of Transportation, doesn't mean that Maine should have to live with those consequences. While I understand the niceties of consistent regulations, why don't we go the other way, and lobby for other states and the federal government to reduce the weight limits for trucks.

Very truly yours

Ann C. Goggin 232 Foreside Road Falmouth ME 04105 Dear Mr. Bolton: I endorse the findings of the Maine Interstate Truck Weight Exemption study and its intent.

Sincerely, Tex Haeuser

Tim,

I'm writing in response to the news article - with personal experiences on local roads. One of the biggest reasons I took a new job closer to home was to get off the highway, where big rigs made me nervous. As it is, and as we all know, truckers tend to drive too fast, too far on too little sleep. Now picture them on a local farm road like Route 8 in Smithfield, or going through tiny Belgrade Lakes Village, where I now work. They still drive too fast and are too tired to care or pay attention. Sometimes, in the village, there is almost not enough room for a semi to pass through.

I have had many close calls with fishtailing trailers crossing over onto my side of Route 8 in Smithfield, and seen some close calls in Belgrade Lakes Village with pedestrians, not to mention how badly the road is chewed up. Last year, I had a few encouncters with a Canadian Cement transporter - tractor trailer - tailgating me down Route 8 and almost running me over when I slowed down to turn onto Route 225. I just wasn't going fast enough for them, even though they were forcing me beyond the speed limit. There was no room between our vehicles for me to safely pull off and let them go by.

If there is some way we can get things passed so those trucks stay on the interstate where they belong, from a personal level, I would be very appreciative. By the way, if they are too heavy for the interstate, then they are definitely too heavy for local roads.

Carol Homer

Mr.Bolton,

As Public Works Director for the City of Presque Isle and as Chairman of the Aroostook County Public Works Association, I would like to express my concern that trucks grossing 100,000 pounds cannot use the interstate hwy north of Augusta.

I-95 should be able to withstand the loads better than the secondary roads can. It does not make sense to send these heavy loads through small towns with school zones, playgrounds and residential areas. It greatly increases the potential for serious accidents. The increased maintenance expenses or the affected towns further stresses already slim budgets. It is time to act and change this antiquated law.

Sincerely,
Gerry M. James, Director
Presque Isle Public Works Department;
Chairman, Aroostook County Public Works Association;
Member, Maine Chapter, American Public Works Association Board of Directors

Dear Mr. Bolton:

As a consuming mill in the state that receives the vast majority of our incoming raw material (wood fiber) and ships significant product from our site, Sappi supports the increase to 100,000 lbs on the Maine Interstate system.

We receive over 400 incoming trucks per day at the Somerset mill alone. Many of these trucks travel rte # 2 from Bangor & Newport and could easily travel I - 95 if the weight limit were 100,000 lbs. Instead they travel with larger loads and increase the traffic on a road that is less well designed than the Interstate. From a public safety position alone the move makes sense to us.

Sincerely, Carl Jordan Wood Fiber & Fuel Procurement Sappi Fine Paper North America 98 North Avenue Suite 30 Skowhegan, Maine 04976

Dear Governor Baldacci,

I oppose any increase in raising OTR weight limits to 100,000 pounds on I-95 or any other road in Maine. The roadway and infrastructure in our state are in deplorable condition due to be the level of heavy haul truck tonnage that is allowed under current regulation.

Increasing the weight limits will potentially increase the costs to the citizens in the following areas:

Medical costs to citizens involved in mishaps with these larger truck weights

Increased cost of road bed maintenance due to increased weights.

Higher cost of capital on future roadway programs to allow for such weight increases.

Of course, the potential cost in future lives lost or maimed due to monstrous trucks involved in collisions cannot gauged using a financial assessment.

Once again I urge you to actively work against any increase in truck weights.

Sincerely, George W. King PO Box 114 Monmouth, Maine 04259

Please do not increase weights above 80,000 pounds for trucks or any other transport vehicle

Elihu York, MD, MPH 96 Jordan Avenue Brunswick ME, 04011 Subject: increasing weight limits on maine's interstate highways

Please support legislation to increase the load limit on Maine's interstate highways to 100,000lbs. This request is made in response to the proposals to route landfill waste through residential streets in Brewer and Bangor, Maine, to the proposed Old Town landfill site. These streets go through downtown areas where there are currently small businesses and residential traffic, and adjoin areas that are entirely residential. I am furious that this traffic may be allowed in an area where I live, solely to reduce the expenses anticipated by the waste operator to carry more, smaller loads on the interstate. Why should I pay for the damage/repairs that can be expected on these smaller roads, or face the possibility that my children may be hit by these trucks, which are guaranteed to exceed the speed limits that are currently posted (trucks on these roads already do this currently; why should the additional ones be any different?), as well as have to put up with the noise and traffic that will congest these areas? How many accidents between traffic turning in and out of these neighborhoods or parking lots and waste-hauling trucks will it take to convince congress that these sweeping limits are a bad idea?

So please, change these weights limits to put this kind of traffic on the roads built away from residential areas, roads that are designed to carry this kind of traffic, and keep it out of the areas in which we and our children play, walk to school and work, bike, and live.

Sincerely, Cyndy and Jim Loftin Brewer, ME

Subject: Trucks on Rural Roads

Hi

I just read the article in the Kennebec Journal concerning the effort to increase the weight limit on Maine's Interstates. As someone who travels Rte. 9 everyday from Unity to Bangor I have first hand experience about the dangers large trucks on small rounds entail. I cannot tell you how many near misses between passenger vehicles and trucks loaded with 100,000 pounds of cargo I have seen. And the people who live along the roads that these trucks are forced to travel have a lower quality of life, I am one of those people. Trucks throw up a massive amount of dirt and dust coating the trees and homes that lie along these routes. Children waiting for the bus or who just want to play in their yards are in great danger. Everytime I pass the spot on Route 9 in Dixmont where a house once stood I think of the person who was killed when a tractor trailer barreled through their home.

The rules need to change. It is silly that the majority of trucks I encounter on the interstate are empty, because they fall within the weight limit, and then on narrow back roads trucks loaded with 100,000 pounds are barreling through Maine's rural towns.

I hope the attempts to change the weight limits on Maine roads is successful, thousands of Maine people would again be able say "Maine the Way Life Should be."

Sincerely, Rebecca Loveland Mr. Bolton.

As a user of the City streets in Augusta I have been crowded on the rotaries by large trucks that are forced to use Augusta by this inconsistent rule if there is anything I can do to help promote a rational decision on this issue please let me.

Thank-you
Terence Peacock, Manchester resident

Subject: CSE opposed to MDOT study conclusions re 100,000 pound trucks on 1-95

Dear Governor Baldacci and Tim Bolton:

The Coalition for Sensible Energy several months ago took a position opposed to the raising of weight limits on Interstate 95 in any state. Here are our reasons:

- (1) Increased costs of maintaining roads and bridges either in state or on the interstates if weights raised. Both my husband and I have served on the MDOT RTAC 2 since its inception. At an RTAC 2 meeting last year, we were shown a video from the University of North Dakota where they documented the damage from vehicle traffic and the heavier the truck the heavier the damage. On bridges the damage is even greater -- as we all know from the Waldo-Hancock bridge.
- (2) The trucks have to get to the interstate and off the interstate to deliver their goods therefore, there will still be "local" traffic and damage to local and state roads and bridges. Maine's roads and bridges were not built to accommodate this heavy traffic but neither were the interstates.
- (3) Safety issues: As anyone who has taken physics knows the heavier the object, the longer it takes it to stop. The 100,000 truck has more momentum than the 80,000 truck and thus subject to more potential accidents, particularly in heavy traffic areas.
- (4) Increased truck traffic on highways is also contributing a great deal to the already congested roads. Building more capacity in many cases is either not possible or too expensive.
- (5) Congestion leads to more and more air pollution, greater greenhouse gas emissions, more time lost in commuting from ALL the vehicles on the roadways.
- (6) By raising weight limits and lowering the cost per ton for shippers, there is also a perverse disincentive to then promote better use of rail and ship for freight traffic. This very much concerns us as we want to have these less polluting forms of transportation used MORE not less.

PLEASE WITHDRAW THE MDOT STUDY.

Thank you

Pam Person, Project Director Coalition for Sensible Energy 479 Back Ridge Road Orland, ME 04472 Dear Mr. Bolton:

We have reviewed the February 2004 draft executive summary of "Study of Impacts Caused by Exempting Currently Non-exempt Maine Interstate Highways from Federal Truck Weight Limits."

We concur with the findings of the study. We do believe as the study suggests that increasing the weight limit from 80,000 pounds to 100,000 pounds on I-95 north of Augusta would have positive impacts on safety and infrastructure.

We manage 850,000 acres of timberland which located in the northern half of the State of Maine. We annually harvest and transport approximately 230,000 cords (575,000 tons) of wood from these lands. Virtually all of this wood is transported to market using 5-axle and 6-axle tractor-semi-trailer trucks. With current weight limits we are unable to utilize I-95 with loaded trucks. We do use I-95 for returns of empty trucks. An increased weight limit of 100,000 pounds on I-95 would be a definite benefit to us in our business and as the study suggests, we believe that the net effect would be more safety on Maine highways and that there would be significant savings regarding maintenance of State highways and bridges.

We strongly support the increased weight limit.

Sincerely,

PRENTISS & CARLISLE MANAGEMENT COMPANY INC.

Lawrence E. Philbrick, Vice President

Dear Mr. Bolton,

I am a resident of Freeport, and support permitting tri-axle trucks to travel on Interstate 295. The current practice which forces these heavy trucks to drive through our village Main Street, immediately by the front entrance to L.L. Bean makes no sense. The enhanced safety of removing these trucks from the congestion of shoppers, employees, and residents is self-evident. I urge the Maine Department of Transportation to permit this change. Thank you for your consideration.

Sincerely,

Rodney J. Regier 56 South Street Freeport, Maine 04032 (207) 865-6687

Subject: Truck traffic

Hello Tim.

Please try to keep the large trucks on the interstate. We don't need them "barreling" through our little village of Unity.

Thank you,

Thelma Whitehouse

Mr. Bolton,

I recently heard about the Maine Interstate Truck Weight Exemption Study. I would like to suggest as a follow-up that the state seriously consider changing its policy of diverting oversize loads off the Maine Turnpike.

I currently serve as chairman of the South Berwick Transportation Committee. One of our biggest concerns in South Berwick is that mobile homes and other oversize loads are routed right through the center of our town on Rtes. 236 and 4, instead of on the Turnpike where they belong. This practice causes unsafe conditions, adds extra wear and tear to our roads and diminishes the quality of life in our town center.

Many of the issues addressed in the Maine Interstate Truck Weight Exemption Study are also raised by the diversion of oversize loads through South Berwick and other southern Maine towns. I urge the state to use the momentum generated by your recently completed study to take action on this long-standing problem faced by my community and many others.

Thank you, John Rudolph 384-5988

Subject: FW: sample email on no heavier trucks

March 11, 2004

Dear Mr. Bolton,

I have just heard about the Maine DOT study on truck traffic on I-95. I noticed that this report recommends increasing truck weights to 100,000 pounds on the balance of I-95. I oppose this increase for the following public health and safety reasons:

100,000 pound trucks are going to use more fuel and cause our already diminished air quality to get worse. Maine has the highest adult asthma rate in the country, and thousands of Maine kids with asthma will be affected too!

100,000 trucks will still be operating on state highways this is not going to solve Maine's problems of truck traffic on local roads.

This is just another attempt to slowly ratchet up the truck weights to the even more dangerous Canadian weights of 110,000 pounds. Maine is a place where people come for a vacation to get away from big trucks. Maine does not want to become like New Jersey.

I am opposed to efforts to expand the number of roads that allow for more dangerous heavier trucks. Thank you for the attention you have given my comments and I sincerely hope you reconsider. I am looking forward to your response.

Saskia Janes, Director Maine Public Health Association Many of the comments were received as a form letter containing essentially the following text:

Dear Mr. Bolton,

I have just been made aware of the Maine DOT's study on truck traffic on I-95. This report recommends increasing truck weights to 100,000 pounds on the balance of I-95. I oppose this for the following reasons:

- 100,000 pound trucks are more dangerous.
- 100,000 pound trucks will still be operating on state highways, this is not going to solve Maine's problems of truck traffic on local roads.
- This is just another attempt to slowly ratchet up the truck weights to the even more dangerous Canadian weights of 110,000 pounds to support the NAFTA trade agreement.

I am opposed to efforts to expand the number of roads that allow more dangerous heavier trucks. Please reply to my message as soon as possible.

The following people submitted comments based on this text:

Laurie J. Therrien Market Manager

St. Lawrence & Atlantic Railroad

Tracie L. Mason

St. Lawrence & Atlantic Railroad

Accounting Assistant (207) 753-4211

George Shaler 13 Merriam St. Portland. ME 04103

Jim MacDonald

[jmacdonald@gwrr.com]

Christina Liros, DC, CNS Assistant Project Director Medical Care Development, Inc.

11 Parkwood Ave. Augusta, ME 04330

Leo P. Caron

Larry Cookson

Scott Kemmerer, MD, FACEP Director of Emergency Services

Maine General Medical Center-Augusta Campus

Harry Grimmnitz, MD

Jacob Gerritsen MD

Thomas L. Fusco 66 Board Road

Brunswick, Maine 04011

[tfusco@gwi.net]

George T. Casey, Director

United Transportation Union New England

Legislative Board 42 Oak Knoll Road Natick, MA 01760

John P. Tracy

Maine State Legislative Director – BMWE (Brotherhood of Maintenance of Way

Employees)



Several respondents made additional comments to the standard text in the form letter:

"I'm opposed to efforts to expand the number of roads that allow for more dangerous heavier trucks. There is also the economy to look at, if this does go through it would create more unemployment with railroad workers and with truck drivers."

William E. Remington Legislative Rep. Division 191 24 Thompson Street Concord, N.H. 03301-3737

"I sincerely hope that you will consider the need for safety for those driving in smaller vehicles on Maine's highways and certainly, that you would not advocate for even more dangerous 110,000 pound truck weights, approval of which may be next on the agenda."

Mrs. Ruth Gabey 880 Lewiston Road West Gardiner, ME, 04345

"I have just been made aware of the Maine DOT's study on truck traffic on I-95. This report recommends increasing truck weights to 100,000 pounds on the balance of I-95. First of all I am wondering why we need to increase the truck weights, when we are failing to keep our roads safe at this time. Just take for example, the current accidents over the past two days, such as the one yesterday in Hallowell, and the other on 202 causing the death of an 18 month old (granted it was not on I-95, however, allowing heavier trucks on I95, brings more trucks into the area). Increasing the weight, also brings into consideration of adding a third lane for safer travel, which other states have created in order to accommodate additional trucks.

Where is the data that supports the need for additional truck weight? Is supply and demand for goods that strong that we need to up the weight limit? I don't see this in the proposal and I oppose this proposal on one basic issue – safety for our Maine citizens.

Just like Maine has taken a strong stance on "No Billboards" and have stayed true to its roots by being different, thus attracting tourists to our unique state, let's keep the truck traffic to a minimum, to provide the environment where everyone can get away from it all.

I hope you take these concerns positively, in that I really care about the environment of this state and, its people and am concerned about the vision we need to instill for the future. Somehow we need to strike a balance that creates a win-win for all and one that continues the tradition of this state, as a place where people want to live without all the traffic hassles that most other states endure.

Kellie Miller 4 Lincoln Street Halloway, ME 04347

MAINEDOT RESPONSE TO COMMENTS ON DRAFT "STUDY OF IMPACTS CAUSED BY EXEMPTING CURRENTLY NON-EXEMPT MAINE INTERSTATE HIGHWAYS FROM FEDERAL TRUCK WEIGHT LIMITS"

On behalf of the Maine Department of Transportation, I would like to thank those members of the public who forwarded comments on our study of the impacts of allowing higher State of Maine truck-weight limits for 5- and 6-axle combination trucks on currently non-exempt Maine Interstate Highways. MaineDOT undertook the study to determine how a Congressional exemption allowing this policy would affect highway safety and infrastructure.

The study predicts that a federal truck-weight exemption for 5- and 6-axle trucks on Maine's currently non-exempt Interstate highways would cause many of these truck that weigh between 80,000 and 100,000 pounds to divert from numerous secondary roads to the Interstate Highway System. This "diversion network" of secondary roads would extend from Portland to the Canadian border. The study further predicts that this policy would reduce truck-related crashes by three each year and save Maine taxpayers between \$1.3 million and \$2 million in pavement and bridge costs.

The study demonstrates that removal of these heavy trucks from our congested secondary roads to better engineered Interstate highways makes sense from a safety standpoint. It notes that the crash rate on Maine secondary roads is nearly three times higher than on the non-exempt Interstates and almost four times higher than on the Maine Turnpike, which currently allows the heavier trucks over 80,000 pounds. National studies also show a similar result.

Some commenters suggested reduction of Maine State truck-weight limits as a proposed solution. This would aggravate rather than reduce the safety problem with heavier trucks. It would require up to 25% more vehicles to carry the same payload, resulting in more heavy vehicle exposure on our highways and intersections, thereby increasing the risk of truck-involved crashes. These extra vehicles will increase air pollutants and their adverse health affects. Economically, weight limit reductions would increase Maine transportation costs, a cost which would ultimately be paid by Maine consumers. Maine's economy would also be disadvantaged relative to other states, which allow higher truck weights. It is highly unlikely that the Maine Legislature would enact legislation to reduce truck weights, given the consequences I have mentioned.

The proposed weight-exemption policy examined in our study would not lead to further truck-weight increases beyond current Maine truck-weight limits. Instead, it would simply redirect heavy trucks that are currently allowed on our secondary roads to a safer highway system that was designed to carry them.

Many thanks to all of you who have commented on our study.

Tim Bolton Study Project Manager Office of Freight Transportation Maine Department of Transportation